HEART of OAK,

THE

BRITISH BULWARK.

The AUTHORS of the *Monthly Review*, give their ſentiments of this pamphlet in the following words.

" Mr. Fiſher humbly offers theſe particulars to the " conſideration of his Majeſty, and the Parliament, as " well as to all Proprietors of land in Great-Britain; " and certainly the ſubject is of the utmoſt weight and " importance. The general inattention, of late years, " to a circumſtance ſo intereſting to the whole nation, " is aſtoniſhing: but it is to be hoped the laudable re- " gard paid to this, among a multitude of other arti- " cles, by the worthy Society for the Encouragement " of Arts, &c. will greatly contribute to excite ſuch a " ſpirit amongſt our landed gentlemen as may not a " little conduce towards remedying the evil ſo pathetic- " cally ſet forth by the author of this valuable tract; a " tract for which he deſerves the thanks of every one " who wiſhes well to the ſecurity and proſperity of theſe " kingdoms."

MONTHLY REVIEW, *December*, 1763.

HEART of OAK,

THE

BRITISH BULWARK.

TO WHICH IS ADDED,

An APPENDIX:

SHEWING,

The AUTHOR's Sentiments, how the preſent Navy of ENGLAND may be preſerved, ſo as to endure more than double the Number of Years it will continue in the preſent Mode of laying up Ships.

By ROGER FISHER,
SHIPWRIGHT, of LIVERPOOL.

The OAK, when living, Monarch of the Wood;
The ENGLISH OAK, *which, dead, commands the Flood.*
CHURCHILL's GOTHAM.

The THIRD EDITION, Corrected.

LONDON:
Printed for J. JOHNSON, No. 72, St. *Paul's* Church Yard; and Mr. FOX, in *Weſtminſter Hall.*
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TO THE

Honourable AUGUSTUS HARVEY.

Honourable Sir,

IN the laſt ſeſſion of parliament, when a Committee of the Honourable Houſe were inquiring how the navy might be better ſupplied with timber, you was pleaſed to honour me with your addreſs, to the following purport, That a re-publication of my book, intitled, *Heart of Oak, the Britiſh Bulwark*, might be of real ſervice to the public, inaſmuch as it contained a great number of undoubted teſtimonies of our exhauſted finances in that branch, in the different counties through the kingdom, and might be a means of communicating ſome light into the preſent inquiry. I ſhall not make further apology for the preſent publication of this treatiſe; if it prove of any real ſervice to this country, my utmoſt wiſhes are gratified; nor do I expect any private emolument ariſing therefrom, or that the ſale will ever defray the expence, knowing, by experience of thirty years dealing in the timber and ſhipwright branches, that there are but very few gentlemen, either in private character or in the auguſt aſſemblies, that have hitherto laid it to heart: the abſolute neceſſity of a future ſupply of Britiſh Oak, for the continuance of a formidable Britiſh Navy, ſuch as we are now poſſeſſed of. I therefore recommend to your patronage, as a lover of the Britiſh Navy, the following ſheets; and as the high ſtation wherein you now act may give you opportunity of being of great ſervice in redreſſing the evil ſo long complained of, if there be any hints of public utility in the

preſent

preſent performance, I am well aſſured of your zeal for his Majeſty's ſervice, and the good of the nation in general, that you will cauſe them to be diſperſed as univerſally as the neceſſity of the caſe requires. In my firſt publication, I well knew it would not be long before the Admiralty and Navy Boards would be fatally convinced of our exhauſted ſtate of navy timber; though, at that period, the year 1763, they were generally ſupplied with three years ſtock before hand in his Majeſty's yards, but now find it difficult to ſupply the current ſervices of one year, without applying to the Germanic ſtates. However melancholy and degrading the thought may be, yet the truth is plainly evinced by the report of the Navy Board to the Honourable Committee of Inquiry. I have likewiſe added ſome remarks and obſervations on that enquiry, and the author's ſentiments of preſervation of the preſent navy; together with an extract of a letter of intelligence, communicated to the Honourable Navy Board, of the utility of the South Carolina Live Oak, and Pitch Pine; which, if properly attended to, may be of great conſequence to the Britiſh Navy, 'till a future ſupply of Britiſh Oak is provided for by parliament, and a law to preſerve ſo much as we are now poſſeſſed of for that purpoſe only; and ſubſcribe myſelf,

Your moſt obedient humble Servant,

ROGER FISHER.

LIVERPOOL,
January, 1772.

PREFACE.

TO make apology for appearing in print on a ſubject ſo intereſting to the whole kingdom, would be rather a crime than a virtue. It is a ſubject truly worthy the attention of the beſt of kings, the parliament of Great Britain, and the nation in general.

The decreaſe of oak timber has been matter of obſervation and converſation for many years. In March, 1756, the Honourable Houſe of Commons were pleaſed to enquire into the merits of the cauſe; whether the conſumption was greater than the growth? And if planting ſeveral commons might not be of ſervice to produce a quantity of oak to ſupply the navy? And as my informant obſerves, after examining ſeveral witneſſes, as, ſome of his majeſty's purveyors, eminent ſhipwrights and timber merchants, the general opinion was, that the large oak timber, particularly near the ſea coaſt, was much exhauſted. Upon which the ſeveral acts for preſerving oak were ordered to be read; and an act paſſed for planting thoſe commons.—If ſuch an act did paſs, I have never heard that it was put in execution.

I verily believe the true reaſon why ſome of our counties have been ſuffered to be wholly exhauſted; and others of our chief nurſeries nearly ſo too, is, becauſe the real proportionate decreaſe was never aſcertained; otherwiſe, it had not eſcaped the wiſdom of our legiſlature, ſo as to permit the kingdom to be drained as it is.—Had it been juſtly demonſtrated in March 1756, that one half, two thirds, or three fourths of the large ſized timber had been cut down in the ſpace of the laſt thirty or forty years; and ſuppoſing the ſame conſumption to continue, a judgment might have been formed of the duration of the reſt.—For every eminent dealer in timber, that has been a conſiderable time in buſineſs can point out, in his own country, the particular woods that were ſtanding when he entered into trade, and what now remain; whereby a proper eſtimate, amounting almoſt to a certainty, might he aſcertained.

It

It is upon this pinciple I have made my own obſervations, of the proportion of the decreaſe, for many years; and the teſtimonies I have collected from the principal dealers, in general, correſpond in this method. There is no more difficulty in knowing the ſtate of the magazines of timber in England, than of any other material attending the navy, or merchant's ſervice; but only on account of the diſtance and extenſiveneſs thereof, and the expenee that naturally occurs in an enquiry of this kind, which is quite inconſiderable, in compariſon of the benefit which would ariſe to the ſtate from a knowledge of this nature; and the inexpreſſible advantage of providing in time againſt all events.

To remedy the grievance pointed at, the landed intereſt only can be conducive. Yet proprietors of land have, in general, laid aſide planting; but have been very intent upon cutting down what their anceſtors provided. Not only preferring preſent intereſt to public utility, but, like the oſtrich, forgetting their tender offspring; not conſidering how ſoon this nation may be cruſhed by its enemies, when once ſtripped of oak timber; and that reſource comes to fail, its ancient and natural defence. Which at this time is nearly the caſe of half the three kingdoms. If true patriotiſm and care for poſterity were ſincerely united in the breaſt of a gentleman poſſeſſed of a plentiful eſtate of land, he would ſoon find himſelf determined to take a ſurvey of his ground, and to ſow with acorns all the remote ſkirts, uncultivated pieces, and all ſuch parts as were not adapted to agriculture. And by this means he would not only provide for the ſafety and proſperity of his country in general, but (from thoſe parts of his land, which, at preſent, are ſcarce eſteemed worthy of regard) in the ſpace of eighty or one hundred years his own ſucceſſors, in particular, might reap a crop, the value of his whole eſtate.

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HEART

HEART of OAK,

THE

BRITISH BULWARK.

PART I.

Shewing, that there is a neceſſity for the utmoſt attention to be given to the propagating that ſtrength of Great Britain, the Heart of Oak.

IN attempting to ſet forth the neceſſity of a more due attention to the propagating of oak timber, it appears to me expedient, to take ſome notice of the preſent flouriſhing ſtate of Great Britain; which, at this period, is advanced to ſuch an height of imperial dignity, as no other empire, in the known world, ever arrived at.

It is true, divers ages have ſeen the riſe and fall of a number of powerful monarchies; which did command more univerſal ſubjection, by ſubduing and enſlaving their co-temporary nations, and ſpreading

 their

their arbitrary dominion over the known world. But the motives, from which the monarchy of ſuch kingdoms acted, appear to have been pride, rapine, and reſtleſs deſire after deſpotic power: and inſtead of meriting the character of righteous and gracious ſovereigns, they have perpetuated to poſterity the infamous name of tyrants; and, as the due reward of their injuſtice, have been, one after another, tumbled down into the moſt abject ſtate of dependence and ſlavery.——It is with pleaſure we behold a different conduct in Great Britain: Dominion of another kind is diſplayed, and the throne graced with ſuperior dignity.

The Britiſh nation, being provoked to take up arms in defence of her own territories, and, in the courſe of the late war, having conquered ſo much of the enemy's dominions, inſtead of the conquered provinces and iſlands having occaſion to complain of being brought into bondage or ſlavery, their property is ſecured in a firmer manner than it was before: and thoſe benign influences, which the Britiſh conſtitution pours down upon her ſons, immediately take place on *them*, in the ſame manner as if they were free born ſubjects: and the ſuperior advantages which, as a trading people, they have enjoyed under the Britiſh adminiſtration, have been ſo ſenſibly felt by them, that, in thoſe places which were to be reſtored, in conſequence of the peace, ſome of the people have declared, that it was with regret they were obliged to return to their native governors.——A ſtrange contraſt! ſuch as few ages have produced. But ſo truly great is the dignity of our ſtate, to extend her favours along with her conqueſts, and employ majeſtic power in making mankind happy; while ſhe curbs the ambition of tyrants, and diſplays ſovereign dominion in its genuine beneficence, in the four quarters of the globe.

The

The happineſs of our conſtitution is owing to the kind providence of God, in granting us a wiſe and gracious government: but the extent of our influence abroad, is owing to the ſame kind providence, in granting us thoſe bleſſings of nature, whereby we have been enabled to exert ſuch a vaſt naval power, as no former age ever produced.—While our ſuperior fleets have been employed, in conjunction with our armies abroad, that harmonious unanimity which has ſubſiſted between our land and ſea officers, and that inextinguiſhable fervour, with which they have executed their orders, has not only made conqueſts eaſy, but that ſuperiority which we have maintained by ſea, has ſecured us from the horrors of becoming the ſeat of war. We have had continued tranquility at home, to provide magazines; at the ſame time we have enjoyed the benefit of trade, to enrich our ſubjects, at the coſt and diſadvantage of our enemies.—Thus Great Britain enjoys ſafe protection, holds the dominion of the ſea, and gathers riches from all parts of the earth, by the ſtrength of her naval force.

It may not be impertinent, by way of digreſſion, to glance at the different monarchies which have been in the world; and ſhew, how the connexions we have had with ſome of them, have, by dear bought experience, in the end, had this tendency, to awake us to conſider our own intereſt as a maritime power, which is, to maintain a ſuperiority by ſea.

The Aſſyrians made great devaſtation, eſpecially in the northern parts, conquering, ſpoiling, and carrying captive many nations, and making great advances towards univerſal monarchy; which, however, they never obtained, being ſtill withſtood by the united powers of Egypt, Ethiopia,* and other ſouthern na-

 tions;

* Not the country now called Ethiopia, but ſome part of Arabia.

tions: but this introduced the Babyloniſh monarchy, which, like a torrent, ſoon ſubdued the conquerors, the conquered, and all thoſe powers which hitherto had made reſiſtance.

Then the Medes and Perſians ſeize upon the kingdom of Babylon, and exerciſe the ſame deſpotic ſway, until the fierce Grecian comes like a deluge, and carries away their power, as by a ſtorm; ſpreads deſolation through the world, and divides vaſt empires into different parts: then the ſwift eagle mounts aloft, and antient Rome gives law to all the world.

Their power was extended by the uſe of ſhips (to Britons, in thoſe days, almoſt unknown;) and theſe iſles were ſubjected to the Roman yoke; and, for near five hundred years, they maintained their poſſeſſion. The world being now divided into eaſtern and weſtern monarchies, the Vandals, Goths, and other fierce unpoliſhed nations made incurſions into the empire; over-ran a great part of Europe, and made ſuch devaſtation, that the eagle's wings were clipped, and the greatneſs of her power ſubſided.—Only in the eaſt ſhe retained ſome dominion, until the Saracens and Turks ſpread their empire in Aſia, Africa, and part of Europe; whereby all the remains of the old Roman power became extinct.

The inteſtine broils amongſt the ancient Britons (when deſerted by the Romans) introduce the Saxons; who not only gain footing in this iſle, but, in ſpite of all the efforts made againſt them, eſtabliſh the heptarchy, or the ſeven kingdoms of the Anglo-Saxons; from whence we derive the name of Engliſh-men.

A continued ſeries of diviſion among Britons, Romons, Saxons, Picts, and Scots, encourages the piratical Danes, for the ſake of plunder, to make incurſions. They are often repulſed; but, having taſted the

the ſweets of this fruitful ſoil, come forth in greater numbers, from their inhoſpitable ſhores, and tranſplant themſelves into divers parts of this kingdom.—Thus, by means of ſhips, the land ſuffered many invaſions; while our anceſtors were unable either to retaliate the inſults, or defend themſelves, for want of unanimity in exerting the natural Strength of Britain.

We find indeed, 'That this nation, whilſt under 'the Roman adminiſtration, did once declare its in-'dependency, under the conduct of Carauſius, the 'Roman general, or rather admiral; who had been 'declared a rebel by the emperor Maximian: he re-'volting, with the whole fleet, and ſailing to Britain, 'was joyfully received, both by the Britons, and 'the Roman legions and auxiliaries, who proclaimed 'him emperor; and, by increaſing his navy, he be-'came ſo powerful, that Maximian was compelled to 'purchaſe peace, by owning Carauſius emperor in 'Britain. During his life, our anceſtors were en-'tirely freed from their obedience to the Roman em-'pire; and Lord Cork's obſervations of him are, "Had Carauſius been a land officer, all his ſchemes "muſt have proved abortive." But from thoſe particulars of his life which have reached our times, he appears to have been as ſucceſsful as he was wicked, 'as bold as he was powerful, and as fit to command 'as he was ready to execute.——To him we owe 'the firſt dawning of our naval power: a power 'which has ſince appeared in its meridian glory. 'From his conduct we were appriſed of our natural 'ſtrength as an iſland: a ſtrength that cannot fail us, 'if properly exerted, to the end of the world.'*

We have another inſtance in the reign of Alfred. It is ſaid, 'He ſtudied the art of ſhip-building, ſo as to

* See Rider's Hiſtory of England, vol. I.

'to reduce it to a ſcience; and, from conſidering the 'conſtruction of the Daniſh veſſels, invented others, 'which had an advantage over them. They were 'built in the form of gallies, uſually carrying ſixty 'oars, and were longer, larger, ſteadier, ſwifter, and 'higher than the Danes: and by theſe he deſtroyed 'not leſs than twenty privateers, in the compaſs of a 'year:' which is, as the writer further obſerves, 'a 'plain demonſtration of the utility of Alfred's in-'vention, as well as a leſſon to all ſucceeding mo-'narchs, that the bulwark of this iſland is a naval 'force.'

In the reign of Edgar, it is ſaid, 'He guarded his 'coaſts with a formidable fleet, far ſuperior to any 'that had been fitted out by any of his predeceſſors, 'and more powerful than thoſe of all the European 'princes, joined together.'—The number of veſſels which compoſed his navy are variouſly related by different authors. Some ſay, 'it amounted to no 'leſs than four thouſand ſail.' Others again, with more credibility, ſettle it at three thouſand ſix hundred; and that he divided them into three fleets, of twelve hundred each.* Others reduce them to a thouſand† (which may be no contradiction, ſuppoſing one to ſpeak of all the veſſels of force, and another to include all the ſmall craft attending them.) But, upon the whole, it appears that our anceſtors, ſo long ago, were very ſenſible that their natural defence conſiſted in maintaining a ſuperiority by ſea.

But alas! the different competitors amongſt the conquerors would never let this unhappy iſle long enjoy the fruits of Peace, nor unite to exert the ſtrength of Britain for the common ſafety.——The Norman tyrant, by the battle of Haſtings, gives the finiſhing ſtroke to the power of all the former. The devaſta-

* See Rider's Hiſtory of England, vol. III. † Poſtlethwaite's Dictionary.

devaſtation made by fire and ſword, famine and peſtilence, is enough to make the ſtouteſt heart to ſhudder: property changed, eſtates confiſcated, nobility baniſhed, and ſtrangers placed in their room: the whole land a ſcene of bloodſhed and ſlaughter. — Yet it is obſerved, ſoon after he mounted the throne, a ſet of banditti, or robbers, infeſted the country, meltering themſelves in the woods; with which the kingdom was, at this time, almoſt overgrown; but has been gradually decreaſing ever ſince.

And it appears, ſo early as the reign of Henry the ſecond, how jealous the government was of the decreaſe of woods: for a law was made, that no man ſhould buy, or ſell, any ſhip to be ſent out of England; nor ſhould carry, or cauſe to be carried, any timber out of England.*

And now, by the happy revolution from popery, we are become a flouriſhing, free people; and, by the happy union between England and Scotland, we are become one people; and as we have long been ſenſible that a maritime force is the ſtrength of this nation: theſe are reaſons ſufficient, not only for perpetuating unity among ourſelves, but for paying a more due attention to the propagating of that valuable part of our treaſure, *the heart of oak*. The welfare of our king and country, our religion, laws, and liberty depend upon it; for, without the art of ſhipbuilding, and proper materials wherewith to conſtruct ſhips, we ſhall ſoon become a prey to the next aſpiring invader.

It may be deemed impertinent, in treating on this ſubject, to intermix with it any part of hiſtory, as it has no relation to the increaſe or decreaſe of oak timber, and is foreign to the purpoſe. — It is true, that the ſubjects are very different; nor do

* See Rider's Hiſtory of England, vol. VII. page 184.

I pretend to be an hiſtorian; only to note what every intelligent perſon, who has read the hiſtory of his native country, may eaſily obſerve; for it is impoſſible that a perſon of due attention, who is but moderately acquainted with the tranſactions of former ages, and has been a ſpectator of the two late wars, and obſerved the changes that have happened in Europe, but, if he loves his country, will naturally enquire where lies its chief ſtrength: and if he reflects how this iſland has been expoſed to invaſions, revolutions, deſolation, and deſtruction, in former ages, through the neglect of a proper uſe of our timber, and conſiders the contraſt between thoſe times and the preſent, ſince there has been ſuch a vaſt exertion of our natural ſtrength; and if he then obſerves the prodigious conſumption of our timber, he will be ſurprized to think it has been neglected ſo long, and will naturally conceive, that if it is not ſeaſonably retrieved, the ſame effects that enſued upon the neglect of the uſe, will, in time, enſue from the neglect of propagation.

Therefore, though I be deſpiſed and derided for intermeddling in politicks, as not being equal to the taſk, I will ſpeak, for the good of my country, and not regard what any one ſhall think or ſay of me. I will not join in the publick clamour concerning the decreaſe of oak timber merely from hear-ſay; but will relate what, by *ocular demonſtration*, I know to be fact, and what I have had from others *whoſe teſtimony is undeniable*. —— Having been concerned as a dealer in timber, or ſhipwright, in twelve different counties; particularly acquainted with North and South Wales, and a great part of the counties from whence we draw our ſupplies, both for the navy and the merchants ſervice. My own certain knowledge of the caſe is the ſole motive of my appearing in public: for which I ſhall make no other apology than this, *Is*

there

there not a cauſe? —— The queſtion is not, whether I be equal to the taſk I have undertaken? but, whether thoſe reſources, on which depends the preſervation of our ſtate, be equal to the weight they have to ſupport?

Let Britons conſider, that the grand monarchies of Babylon, Perſia, Greece, and Rome, are no more. And let them enquire of any who are acquainted with the hiſtory of thoſe empires, how came the kingdom of Babylon to ſink under the arms of Perſia? How came the Perſian power to melt away before the Greeks? How came the kingdom of Macedon to fall into the hands of the Romans? How came the weſtern Roman empire to be ruined by the northern invaſions? How came the empire of Conſtantinople to be ſwallowed up by the Turks.—— They will tell you, the gates of deſtruction, to every one of theſe powers, were opened by *ſupineneſs;* for they neglected making proper uſe of the power which God had put into their hands; and did not pay a due attention to the neceſſary means for preſerving that power with which they were intruſted.

The ſovereign hand of Providence operates by the uſe of proper means; and when a people grow remiſs, ſupine, and inattentive to their own conſtitution, and become inſenſible of the favours put into their hands, ſo as to neglect the means of preſerving them, they are no longer fit for empire: then the ſovereign diſpoſer of kingdoms removes the diadem to another land.

Let us take a view of our deliverances, both from the foreign invaſions and inteſtine diſtractions under which our fathers groaned in former ages: what wonderful preſervations we have had from threatened invaſions, and the profound machinations of inveterate adverſaries in later days! We have ſeen the Spaniſh

monarchy aſpiring after extent of power, and particularly ſending forth terrible menaces againſt this iſle; now, for ſome ages, upon the decline.—France, who for ſome centuries has been endeavouring to bring the European powers into ſubjection, and by the vaſt exertion of her terrene and maritime force, had rendered herſelf ſo formidable, that, as I have been informed, it was ſaid to Peter the Great of Ruſſia, when on his travels through France, and beholding her inward polity, extent of dominion, number of ſea-ports in the Channel and Mediterranean, her increaſing power in Aſia, Africa, and America, "That "ſhe bid fair for univerſal empire of the ſeas and "Europe."—But we have ſeen her glory fade, and the chief dominion committed into the hands of Great Britain.

And now we may behold, with admiration, the peculiar favours conferred upon us, and the ineſtimable bleſſings which we enjoy! and ſhall we remain inſenſible?—Shall we, after we have for ages indefatigably ſtruggled for victory, and been crowned with ſuch glorious ſucceſs, neglect any meaſures that human prudence can dictate, conſiſtent with honour, juſtice, and the faith of treaties, to maintain that ſuperiority by ſea, of which we are now poſſeſſed?

Great Britain now reigns triumphant in her natural element, reſpected and feared by her neighbours, flouriſhing in peace and commerce; and that upon the principles of juſtice, truth, and generoſity. May ſhe long retain the ſame ſentiments of liberty and power which her ſons now enjoy!—But let us remember, that all things have their mutations. If ever there proves a defect in any part of our maritime ſtrength, we ſhall not want for rivals—Suppoſing us hereafter to be bleſſed with the ſame wiſdom in our adminiſtration, the ſame prudent conduct in our com-

commanders, the ſame invincible valour in our men, and the ſame reſources of treaſure as at preſent; yet if our magazines be deprived of one principal material for execution, it will render all our intended atchievments abortive — Such a principal material is *the Heart of Oak.* If this cannot be found ſufficient to ſupply us with due ſtrength of ſhipping, all our other implements of war by ſea will be rendered uſeleſs, and our warlike genius can no more be diſplayed upon the ocean. — Then what will become of the glory of this realm? — Theſe are the reaſons which induce me to ſhew that there is an abſolute neceſſity for a more ſtrict attention being paid to the propagating of oak timber than has hitherto been manifeſted on this important ſubject.

SECT. II.

Proving that the laws already in being are insufficient to prevent the nation from being divested of this commodity.

In which I have endeavoured to collect and transcribe some of those laws that have been made in the different reigns, for the preservation and propagation of oak timber; by which it appears that the parliament of Great-Britain was always sensible that the strength of the nation wholly depended on having sufficient materials for a maritime power, and particularly HEART OF OAK; *as appears by the different acts annexed.*

Stat. 35. Hen. VIII. C. 17.

See Shaw's Justice, under the title of wood, page 392.

WHERE coppices are felled at or under 24 years growth, there shall be left in every acre 12 standils of oaks; and if so many do not grow there, then it shall be supplied with the like number of elm, ash, asp, or beech; or for every standil not so left, the owner forfeits 3*s.* 6*d.*

These standils must not be felled till they are ten inches square, within three feet of the ground, under the forfeiture of 3*s.* 6*d.*

If felled above 24 years growth, and not leaving so many standils, &c. forfeits *per* standil, 6*s.* 8*d.*

But such standils may be felled for the use of the owner of the soil in building, &c.

Underwoods felled at 14 years growth, shall for six years afterwards be preserved from destruction of cattle,

cattle, or the owner ſhall forfeit for every rood, *per* month, unfenced 3*s.* 4*d.* —— This muſt be done by him who hath a lawful intereſt and poſſeſſion in the woods, and it muſt be ſet forth in information, or it is ill.

Cro. Eliz. 127.

Coppice woods containing two acres and upwards, and being two furlongs diſtance from the houſe of the owner, ſhall not be converted into tillage or paſture; penalty is 48*s.* for every acre.

Not converted into tillage.

Theſe forfeitures are to be recovered in any court of record, and go to the king and proſecutor.

Where there is a wood or coppice wherein others have common, the lord or owner of the ſoil ſhall not fell or cut down the ſame, except to his own uſe, before he and the commoners ſhall agree in the ſetting out of the fourth part thereof to be ſeverally incloſed for the lord's uſe; and in caſe they cannot agree thereupon, two juſtices of peace, appointed by the major part of the juſtices in ſeſſions, ſhall have power to call together twelve of the Commoners and inhabitants there, and, with the lord's and their conſent, to ſet out the fourth part thereof to be ſeverally incloſed by the ſaid lord within one month after, and theſe to be felled at his pleaſure; and alſo to be ſubject to the aforeſaid laws of other coppice, upon ſuch penalties as aforeſaid: only if any beaſt be ſuffered to come into ſuch fourth part within ſeven years after they are felled, the owner of ſuch cattle ſhall forfeit for every ſuch Beaſt 4*s.* And if the owner of ſuch wood or coppice cut down any trees or underwoods there, contrary to the form aforeſaid, he ſhall forfeit, for every tree ſo cut down, 6*s.* 8*d.* And during that ſeven years the commoners ſhall have no right of common there, and the lord ſhall be cauſed to com-

The method of the lord's incloſing wood where others have common.

mon

mon in the reſidue; but after the ſeven years they may both intercommon in the whole. And in caſe the lord doth not fell the fourth part within a month after it is incloſed, the commoners may put in their cattle as before.

This act doth not extend to underwoods in Kent, Surry, and Suſſex, ſave only the common wood there.

Stat. 13. Eliz. C. 25.

Woods above 14, under 24 Years, muſt be preſerved for 8 Years.

All woods or coppice mentioned in Stat. 35. H. 8. C. 17, if above fourteen years, and under twenty-four years growth, muſt be preſerved for eight years.

If above twenty-four years, muſt be preſerved for nine years. No cattle ſhall be put in, from the time of felling ſuch coppice, till five years afterwards; nor then neither, but calves or yearly colts, until the end of ſix years, if the coppice was under four years growth.

Stat. 1. Eliz. C. 15.

None ſhall convert to coal, &c. any timber, &c.

None ſhall convert or employ to coal or other fuel for the making of iron, any timber trees, or trees of oak, beech or aſh, of the breadth of a foot ſquare at the ſtubs, and growing within 14 miles of the ſea, or of any part of the Thames, Severn, Wye, Humber, Dee, Tine, Tees, Trent, or other navigable rivers, on pain to forfeit 40*s*. for every tree ſo converted, to be divided between the king and proſecutor.

This act not to extend to Suſſex, the wild of Kent, or to the pariſhes of Charlewood, Newdigate, or Leighs in the wilds of Surry.

Stat.

Stat. 23. Eliz. C. 5.

Woods, &c. not to be converted into coal.

Woods or underwoods ſhall not be converted into coal for making iron, which grow,

1. Within 22 miles of London, or ſuburbs.

2. Within that diſtance of Thames, at Dorcheſter in Oxfordſhire downwards.

3. Or within four miles of the foot of the Downs, but between Arundel and Pevenſey in Com. Suſſex.

4. Or within four miles of Winchelſea or Rye, two miles of Pevenſey, three miles of Haſtings.

The penalty is 50*s.* *per* load between king and proſecutor.

This act does not extend to woods in the wilds of Surry, Suſſex, or Kent, within 22 miles of London or Thames, ſo as they are diſtant above 18 miles from London or Thames.

No new iron works to be ſet up.

No new iron works ſhall be erected within 22 miles of London, 14 miles of Thames, or 4 miles of the ſaid Downs, Pevenſey, Winchelſea, Haſtings, or Rye, on pain of 100*l.* to be divided as aforeſaid.

Stat. 27. Eliz. C. 19.

Nor Furnaces, &c.

Furnaces, &c. ſhall not be erected in Suſſex, Surry, or Kent, otherwiſe than upon old Bays, or Tens, where ſuch works have been commonly ſtanding, or upon lands where ſuch work may be continually ſupplied with woods of the owner of ſuch furnace, without committing waſte; nor ſhall convert to coal or other fuel, for the making any iron, any ſound timber tree, of oak, aſh, or elm, which ſhall be a foot ſquare

ſquare at the ſtubs or any part thereof, on pain, for every new work ſet up, of 300 *l.* and for every tree ſo converted 40*s.* to be divided betwixt the king and proſecutor.

But tops of ſuch trees may be coaled, &c.

Tops of ſuch trees may be coaled in thoſe counties, but not within 18 miles of London, 8 miles of the Thames, 4 miles of Rye and Winchelſea, 3 miles of Haſtings, or 4 miles of the foot of the Downs betwixt Arundel and Pevenſey.

Stat. 20. Ch. 2. Chap. 3.

Jacob's Law Dict. under the Title of timber for the navy.

An act for the increaſe and preſervation of timber within the foreſt of Dean.

Foraſmuch as the wood and timber of the crown, which of late years was of very great quantity and value, within the foreſt or late foreſt of Dean, in the county of Glouceſter, is become totally deſtroyed, except what is ſtanding within the woodwardſhip of the Lee Baily, whereby there is an apparent ſcarcity of timber, as in all the other parts of the kingdom; ſo that ſome courſe is neceſſary to be taken to reſtore and preſerve the growth of timber for the future ſupply of his majeſty's royal navy, and the maintenance of ſhipping for the trade of this nation.

Ten thouſand acres in the foreſt to be encloſed, and one thouſand more in the grounds called Cannop, Fellet, Buckholt, Beachenhurſt, and Moryſtock.

Stat. 9. & 10. of Will. 3. Chap. 36. Sect. 1.

And it ſhall be lawful for his majeſty to encloſe 2000 acres, to be ſet out by virtue of his majeſty's commiſſion, directed to ſix ſuch perſons as his majeſty ſhall

ſhall think fit, (whereof two to be juſtices of peace for the county of Southampton, not being officers of the foreſt,) and the quantities and boundaries returned into the exchequer, there to remain on record; and it ſhall be lawful in like manner to encloſe 200 acres of the waſte in the ſaid foreſt yearly, for the term of 20 years, from the time that the encloſure of the 2000 acres ſhall be made; the ſaid incloſures to remain in ſeveralty in the actual poſſeſſion of the crown for ever, freed from all right, and kept a nurſery for timber only.

Anno 1756.

An Act for incloſing, by the mutual conſent of the lords and tenants, part of any common for the purpoſe of planting and preſerving trees fit for timber or underwood, and for more effectually preventing the unlawful deſtruction of trees.

Statute of Merton. WHEREAS by the ſtatute made at Merton, it was provided and granted, that lords of waſtes, woods, and paſtures, in which their tenants have common of paſture, reſerving to their tenants ſufficient paſture, as much as belongeth to their tenements, with ſufficient ingreſs and egreſs to the ſame, may approve the reſidue of ſuch waſtes, woods, and paſtures: And whereas, by a ſtatute made in the thirteenth year of king Edward the third, commonly called the Stat. of Weſtminſter the ſecond, it was ordained, That the ſaid ſtatute of Merton ſhould hold place between lords of waſtes, woods, and paſtures, and their neighbours, having common appurtenant therein:

13. Edw. 3. C. 46.

therein; and proviſion is thereby made againſt cutting down dykes and hedges, levied by ſuch as have right ſo to approve. And whereas, by an act, made in the third and fourth year of the reign of king Edward the ſixth, intituled, an act, concerning the approvements of moors and waſte grounds. The ſaid ſtatutes, and all articles thereof then not repealed, were confirmed: And whereas the ſaid proviſions for the approvement of waſtes, woods, and paſtures, have been in many caſes rendered ineffectual, by the contradiction and diſſent of a few perſons, having right of common in the ſaid waſtes, woods, and paſtures; who, under pretence that ſufficient paſture is not preſerved to them, diſturb the lords of ſuch waſtes, woods, and paſtures, or their aſſigns, in the poſſeſſion of the ground, and ſoil ſo approved, and diſcourage them from aſſerting their right to make or continue ſuch approvement. And whereas the general proviſions made by an act of the thirty-fifth year of the reign of king Henry the eighth, and by ſeveral other acts of parliament of the twentieth year of king Charles the ſecond, intituled, an Act for the increaſe and preſervation of timber, within the foreſt of Dean, and the other of the ninth and tenth year of the reign of king William the third, intituled, An act for the increaſe and preſervation of timber in the new foreſt in the county of Southampton, whereby part of the waſte lands of the ſaid ſeveral foreſts are directed to be incloſed and kept in ſeveralty, for the growth and preſervation of timber, have not been put in execution. And whereas, for want of a proper ſupply of the timber of the growth of this kingdom, a great quantity

3. & 4. Edw. 6. C. 3.

35. H. 8. C. 17.

20 Car. 2. C. 3.

9. & 10. W. 3. C. 36.

tity of foreign timber is neceſſarily uſed for building ſhips and houſes, and for other purpoſes, and the general price of timber is greatly increaſed. And whereas many tracts of waſte land, unfit for tillage or paſture, but capable of producing different kinds of trees, may conveniently be inclоſed for the growth of timber and underwood, to the advantage both of the owners of the ground and ſoil of ſuch waſtes, and alſo ſuch as have right of common therein, and ſuch incloſure will alſo be of public utility. Be it therefore enacted by the king's moſt excellent majeſty, by and with the advice and conſent of the lords ſpiritual and temporal, and commons, in this preſent parliament aſſembled, and by the authority of the ſame. That it ſhall and may be lawful to and for his majeſty, his heirs, and ſucceſſors, and all other owners of waſtes, woods, and paſtures, in that part of Great-Britain called England, wherein any perſon or perſons, or body or bodies, politick or corporate, hath or have right of common of paſture, by and with the aſſent of the major part, in number and value of the owners and occupiers of tenements, to which the ſaid right of common of paſture doth belong, and to and for the major part, in number and value of the owners and occupiers of ſuch tenements, by and with the conſent of the owner or owners of ſuch waſtes, woods, and paſtures, and to and for any other perſon or perſons, or body politic or corporate, by and with the aſſent and grant of the owner or owners of ſuch waſtes, woods, and paſtures, and the major part, in number and value of the owners and occupiers of tenements, to cloſe and keep in ſeveralty for the growth and preſervation of timber

Proprietors of waſtes, &c. and perſons having a right of common.

May by conſent incloſe any part thereof for planting and preſerving timber or underwood.

ber or underwood, any part of ſuch waſtes, woods, and paſtures, for ſuch time, and in ſuch manner, and upon ſuch conditions, as ſhall be agreed by them reſpectively.

If any recompence be agreed to be given to the tenant, in what manner the ſame is to be applied.

2. Provided nevertheleſs, and be it enacted by the authority aforeſaid, that in caſe any recompence ſhall be agreed to be given for ſuch incloſure, or to the benefit of the owners and occupiers of tenements, to which the right of common, in ſuch waſtes, and woods, and paſtures, doth belong, ſuch recompence ſhall be made either by a grant of a ſhare of the profit, which ſhall ariſe from the ſale of the timber or underwood growing on the ground, or ſoil ſo incloſed, or by a grant of other lands, tenements, or hereditaments, or by ſome annuity or rent-charge iſſuing out of the ſaid ground or ſoil ſo incloſed, or out of other lands, tenements, or hereditaments, or ſhall be paid in money, to be placed out at intereſt, or public ſecurities, or laid out in the purchaſe of lands, tenements, or hereditaments, or of ſome annuity or rent-charge iſſuing out of lands, tenements, or hereditaments, and the produce of ſuch lands, tenements, or hereditaments, or ſuch annuity or rent-charge, or the intereſt of ſuch money, until the ſame ſhall be laid out in ſuch purchaſe as aforeſaid, ſhall be paid from time to time to the overſeers or overſeer of the poor of the ſaid pariſh, or townſhip, and ſhall be by them or him applied towards the relief of the poor of the pariſh or townſhip, where ſuch waſtes, woods, or paſtures, ſhall lie, and accounted for in ſuch manner, as the rates for relief of the poor are by law directed to be accounted for.

And

And in caſe the owner or owners of any ſuch waſtes, woods, or paſtures, and the major part, in number and value, of the owners and occupiers of the tenements, to which ſuch right of common doth belong, ſhall jointly agree to aſſign and grant their reſpective right and intereſt in any part of the ſaid waſtes, woods, or paſtures, for the purpoſe of making ſuch incloſures, as aforeſaid, to any other perſon or perſons, or body politic or corporate; and the owner or owners of ſuch waſtes, woods, and paſtures, ſhall not have an eſtate in fee-ſimple therein, or ſhall be diſabled or reſtrained from alienating the ſame, the recompence to be paid to any ſuch owner or owners, ſhall be either by a grant of a ſhare of the profit, which ſhall from time to time ariſe from the ſale of the timber or underwood growing on the ground or ſoil ſo incloſed, or by a grant of other lands, tenements, or hereditaments, or of an annuity or rent charge, iſſuing out of the ſaid ground or ſoil ſo incloſed, or out of other lands, tenements, or hereditaments; ſuch equivalent to be held and enjoyed by the owner or owners of ſuch waſtes, woods, and paſtures, and ſuch as ſhall be intitled to the ſame in reverſion, remainder, or ſucceſſion, in like manner as the eſtate, in ſuch waſtes, woods, and paſtures, is limited to be held and enjoyed, and in caſe the inhabitants of any pariſh or townſhip ſhall be willing to acquire ſuch right of incloſure for the employment and benefit of the poor of the ſaid pariſh or townſhip, and any recompence ſhall be agreed to be given for the ſame, it ſhall and may be lawful for the overſeer and overſeers of ſuch pariſh or townſhip, (by

If lords and tenants join in aſſigning their rights of incloſure to any other perſon.

How recompence is to be made to the lord if he have not fee-ſimple therein, or be diſabled to alien.

Pariſh willing to buy ſuch right for employ of the poor.

(by the conſent and direction of the major part of the inhabitants thereof, aſſembled at a veſtry or publick meeting to be held for that purpoſe; publick notice being firſt given of ſuch intended veſtry, or meeting, in the church or chapel belonging to ſuch pariſh or townſhip, on three Sundays, at the leaſt, before ſuch veſtry or meeting ſhall be held,) ſhall pay or purchaſe ſuch recompence out of any monies ariſing from the taxes raiſed, or to be raiſed, for the relief of the poor, and out of ſuch monies to pay from time to time ſuch charges and expences as ſhall be neceſſary for incloſing, and preſerving ſuch grounds ſo incloſed; and ſuch overſeers or overſeer ſhall, from time to time, apply the profit which ſhall ariſe from the ſale of the timber or underwood growing thereon, towards the relief of the poor of the ſaid pariſh or townſhip, and ſhall account for the ſame in like manner as he and they is and are by law obliged to account for the rates collected for the relief of the poor.

Recompence and other charges to be paid out of the poor rates.

And the profits to be employed in aid thereof.

3. Provided always that every agreement for any ſuch incloſure ſhall be in writing, and ſigned by the parties; and the ſame ſhall be regiſtered and enrolled by the clerk of the peace for the county, riding, or diviſion, where ſuch waſtes, woods, or paſtures, or the greateſt part of them ſhall lie, within three months next after the execution of ſuch agreement.

Agreements to be ſigned and regiſtered within 3 months.

4. Provided alſo, and be it enacted, that it ſhall and may be lawful to and for all perſons or bodies, politic or corporate, who ſhall think themſelves injured

Perſons agrieved may appeal to the quarter ſeſſions.

jured or agrieved by ſuch agreement, or for any perſons in their behalf within ſix months next after any ſuch agreement ſhall be regiſtered and inrolled in manner aforeſaid, to make complaint thereof by appeal to the juſtices of the peace at any quarter ſeſſions to be held for the county, riding, or diviſion, who are hereby authoriſed and required to hear and determine ſuch appeals, and whoſe determination therein ſhall be final; and if no ſuch appeal ſhall be made, then the ſaid agreement ſo regiſtered and inrolled as aforeſaid ſhall be for ever binding to all perſons whatſoever, without any further or other appeal.

In caſe there be no appeal, the agreement to ſtand good.

5. And be it further enacted by the authority aforeſaid, that it ſhall and may be lawful to and for all bodies, politic or corporate, whether aggregate or ſole, and all feofees in truſt, executors, adminiſtrators, guardians, committees, or other truſtees whatſoever, for and on behalf of any infants, femes covert, lunatics, idiots, or other perſons whatſoever, and the huſbands of femes covert, who ſhall be ſeized, poſſeſſed of, or intereſted in any ſuch waſtes, wood or paſture, or any right of common on ſuch waſtes, woods, or paſtures, to agree to any ſuch incloſure; and all ſuch agreements ſo made ſhall be valid to all intents and purpoſes; and ſuch bodies, politic or corporate, feofees in truſt, executors, adminiſtrators, guardians, committees, and other truſtees, and huſbands of femes covert, ſhall be indemnified for what they ſhall do by virtue of this act.

Bodies politic, guardians and truſtees impowered to agree to ſuch incloſure.

6. And

If any trees growing within ſuch incloſures ſhall be unlawfully cut or deſtroyed.

6. And be it further enacted by the authority aforeſaid, that if any perſon from and after the time hereby limited, for bringing ſuch appeal againſt any ſuch agreement for the incloſure of any part of ſuch waſtes, woods, or paſtures, ſhall either by day or by night unlawfully cut, take, deſtroy, break, throw down, bark, pluck up, burn, deface, ſpoil, or carry away any trees growing within any ſuch incloſure, without the conſent of the owner or owners thereof, ſuch owner or owners ſhall have ſuch remedy, and have and receive ſuch ſatisfaction and recompence of and from the inhabitants of the pariſhes, towns, hamlets, villages, or places adjoining to ſuch incloſures, and recover ſuch damages againſt ſuch inhabitants of ſuch pariſhes, towns, hamlets, villages, or places adjoining, and in the ſame manner and form as is directed for dikes and hedges overthrown by the ſaid act, made in the thirteenth year of the reign of king Edward the firſt, unleſs the offender or offenders ſhall be convicted of ſuch offence, within the ſpace of ſix months next after the commiſſion thereof.

Damages to be made good by the adjoining pariſhes, unleſs the offender be convicted within 6 months.

Offences to be determined by two juſtices of the peace, or at the ſeſſion.

7. And be it further enacted by the authority aforeſaid, that it ſhall and may be lawful to and for any two truſtees of the peace of the county, riding, diviſion, city, town, liberty or place, wherein any ſuch offence ſhall be committed, or for the juſtices of the peace for ſuch county, riding, diviſion, city, town, liberty or place, in open ſeſſions, upon complaint to them made, to cauſe every ſuch offender to be apprehended for ſuch treſpaſſes, and to hear

hear and determine the ſame, and to inflict the like penalty and puniſhment on every offender by them convicted, as is directed to be inflicted on offenders, by an act made in the fifth year of his majeſty king George the firſt, intitled, An act to explain and amend an act paſſed in the firſt year of his majeſty's reign, intitled, An act to encourage the planting of timber trees, fruit trees, and other trees for ornament, ſhelter or profit, and for the better preſervation of the ſame, and for the preventing the burning of woods, and for the better preſervation of the fences of ſuch woods.

Penalty on conviction, the ſame as by 5 Geo. 1. c. 16.

8. And be it further enacted by the authority aforeſaid, that if any perſon from and after the firſt day of July, 1756, ſhall unlawfully cut, take, deſtroy, break, throw down, bark, pluck up, burn, deface, ſpoil, or carry away any tree growing in any waſte, wood, or paſture, in which any perſon or perſons, or body or bodies, politic or corporate, hath or have right of common, every ſuch offender ſhall and may be in like manner convicted of ſuch offence, and ſhall incur the like penalty.

Any perſon unlawfully cutting or deſtroying trees, or commonable grounds to be in like manner convicted and puniſhed.

9. And whereas an act made in the ninth year of the reign of his majeſty king George the firſt, intitled, An act for the more effectual puniſhing wicked and evil perſons going armed in diſguiſe, and doing injuries and violence to the perſons and properties of his majeſty's ſubjects; and for the more eaſy bringing offenders to juſtice, it is, among other things, enacted, that the inhabitants of every hundred, within that

Doubt ariſing on Geo. 1. c. 22. § 7. obviated.

part of Great Britain called England, ſhall make full ſatisfaction and amends to all and every perſon and perſons, their executors, and adminiſtrators, for the damages they have ſuſtained, or ſuffered by the cutting down or deſtroying any trees, which ſhall be done or committed by any offender or offenders againſt the ſaid act, to be recovered in manner as by the act is directed: and whereas doubts have ariſen whether the proviſion made by the ſaid act, made in the ninth year of the reign of his ſaid late majeſty, has not repealed and annulled the remedy given by the ſaid acts, of the firſt and ſixth years of the reign of his ſaid late majeſty, for obviating the ſaid doubt.

And remedy for damage, mentioned in the ſaid clauſe, may be taken according to the acts of 1 Geo. 1. c. 8. and 6 Geo. 1. c. 16.

Be it enacted by the authority aforeſaid, that from and after the firſt day of July, 1756, it ſhall and may be lawful for any perſon, or body politic or corporate, to take remedy for the forementioned damages, either againſt the pariſh, town, hamlet, or place, where any of the ſaid offences ſhall be committed, according to the powers given by the ſaid acts, of the firſt or ſixth years of his ſaid late majeſty's reign, or on the hundred, wherein any of the ſaid offences ſhall be committed, as to ſuch perſon, or body, politic or corporate, ſhall ſeem moſt meet, any thing in the ſaid act, made in the ninth year of his late majeſty to the contrary notwithſtanding.

10. And be it further enacted by the authority aforeſaid, that if any action ſhall be brought againſt any perſon for any matter or thing done by virtue or in execution of this act, the defendant or defendants in every ſuch action ſhall and may plead the general iſſue, and give this act, and the ſpecial matter in evidence,

on

General iſſue. on any trial to be had in ſuch action; and if the plaintiff or plaintiffs ſhall diſcontinue ſuch action, or become nonſuit, if judgment ſhall be given againſt ſuch plaintiff, then the defendant or defendants in every ſuch action ſhall recover treble Treble coſt. coſts and ſuits.

That theſe laws have not been put in excution, is very manifeſt. For whatever ſalutary laws are made at any time by a Britiſh parliament, they remain in force: and every true patriot of his country ſeeing them neglected has it in his power to give information, and is ſure of redreſs. But though they are provided with proper penalties, yet, unleſs officers are appointed to ſee them put into execution, and a proper ſtipend allowed for doing the ſame; and theſe officers accountable to others of ſuperior rank, ſo that the one ſhall depend on the other, like links in a chain; and each one be liable to information, and a penalty for neglect of duty, the frailty of mankind is ſuch, that the beſt ſtatutes dwindle, and the character of an informer is deemed infamous, though from the beſt of cauſes, the love of his country.

This is the real cauſe why many good ſtatutes lie buried in oblivion; and were it not for particular accidental caſes now and then occurring, it would ſcarce be known that ever ſuch acts were made.

That this is the caſe in regard to the continuation or propagation of Oak, or putting the laws relating to it in execution, appears to me very plain: for in the ſpace of thirty years experience, I have never known one inſtance where any gentlemam has not cut down what he pleaſed at his own pleaſure, and planted, or let it alone, juſt as he ſaw moſt conducive to his preſent intereſt.

It is true, that many individuals have ſeen this to be the caſe; have privately remonſtrated, grieved, and declared their diſapprobation of ſuch things.

Many noblemen and gentlemen of different ranks, being ſenſible of the real ſtrength of their country, encourage nurſeries; and their public ſpirit is worthy the imitation of every landed gentleman throughout the kingdom. And that truly noble ſociety for the encouragement of arts and manufactories, who have given ſo many premiums for the perfecting of our commerce, have not forgot the ſhipwright's branch, nor materials for the ſame; but have endeavoured to ſtimulate the artiſts to vie for perfection, and the landholders to propagate the honour of their country; and have not been diſappointed in their expectations; witneſs the medals equal to the honour of heroes, that ſome of our true patriots wear, given by that royal body.

Yet they are ſenſible that the preſent laws are not ſufficient, and have it not in their power to put them in execution; though they ſtill endeavour to inſpire every generous Briton with the ſame ſpirit themſelves are poſſeſſed of.—But facts demonſtrate that the preſent laws are not ſufficient to retrieve the loſs of this commodity: for want of being properly enforced.

We are now a trading people, equal, if not ſuperior, to any in the known world. Our forefathers could not have conceived that Great-Britain would ever have arrived to its preſent ſtate of honour, grandeur and commerce. Yet they provided for it, according as they ſaw it might be neceſſary. Being poſſeſſed with a ſpirit of liberty, and knowing by certain teſtimony how their predeceſſors had been overrun by their enemies, they laid the foundation, in enacting laws for our preſervation. Every gentleman was filled with the noble ſentiments; his houſe ſituated in the midſt of a

ſmall

ſmall park of timber, having every avenue leading thereto (not arable) ſtocked with plants of Oak. We have reaped the advantage. And for ſixty years have, as it were, been living on their ſpoils, as though we thought the fund inexhauſtible.

And though it has been foreſeen for upward of forty years, and particularly of late, that we are preying on our very vitals, yet the bulk of the nation is inſenſible of it, and quite eaſy, ſwimming in plenty, giving laws to the world, yet careleſs of our inward ſecurity.

As trade increaſes, our land increaſes in value. And numbers of gentlemen, to whom I have repreſented the neceſſity of a due attention to encourage plantations of Oak, have ſaid, they can make more of their eſtate by agriculture. And preſent intereſt prevails. This ſhews, that the preſent laws are inſufficient to retrieve the decreaſe thereof.

Which naturally leads me to enquire, Why they are ſo? To which I ſhall anſwer in general.

That the demand for oak timber, for the laſt forty years, will be allowed, by perſons of the beſt underſtanding in that commodity, to exceed three times the quantity that was conſumed in the preceding forty years; and that the conſumption in the laſt twenty years, eſpecially of timber fit for the navy, is three times greater than it was in the preceding twenty years. And according to my own knowledge and experience, which is confirmed by the judgment of the principal cotemporary dealers, both ſhipwrights and timber merchants, there is not now growing one fifth part of the quantity of full grown timber that there was fifty years ago.

And it is manifeſt, beyond all doubt, that the number of ſhips and increaſe of trade in the moſt flouriſhing ſea-ports, through the kingdom, is more than trebled within theſe forty years. It it likewiſe certain,

that

that the increaſe of our conqueſts muſt increaſe the number of ſhips; which muſt, and does, increaſe the value of oak timber. And the increaſe of price, and value of that commodity, together with the increaſe of manufactories, which naturally draws an increaſe of hands to thoſe parts, where ſuch manufactories are carried on; and theſe being moſt contiguous to trading ports, for the ſake of carriage, of conſequence encourages agriculture, which raiſes the value of the landed intereſt. All theſe perſuaſive arguments induce the preſent poſſeſſors of timber to make the beſt market even before it has arrived at its full growth. And the more that land and timber increaſe in value, the greater will the inducement be for the utter extirpation of that commodity. Which is found to be the caſe, or near it, of a great many of the counties in this kingdom.

The ſtately foreſts in ſome parts of the kingdom, which hiſtory gives account of, and which ſome of the ancient ſeats of gentlemen, formerly built of timber, and yet remaining, do teſtify there were ſuch, are cut down, and no care is taken of planting. The timber in the hedges naturally ſuffered the ſame fate, till the very crows (who are greater planters then moſt of our modren gentry) having no aſylum, or place of ſafety for their young, ſcorn the uſage, and fly for refuge to their more hoſpitable friends.

The very brambles and buſhes being diveſted of their ſhelter, expoſed to bluſtering winds and ſtorms, and which uſed to afford a ſafe retreat for the black bird, thruſh and linnet, die away; theſe ſmaller birds take umbrage and follow the example ſet them by the crows. And the ancient ſtock, for want of the ſeed being propagated by theſe little animals in different ſoils, naturally dies. So that nothing but ſtone walls or land-marks, are left to deſcribe the boundaries.

If the preſent laws were calculated for the preſervation

tion and increaſing of the quantity of oak timber; and if it be beyond all doubt, that the decreaſe ſince theſe laws were made is ſo great, there needs no argument to prove, that the laws in being are not ſufficient to anſwer the end for which they were intended.

I ſhall proceed to give ſome farther reaſons why they are.

The chief intent of the legiſlature in making the laws was no doubt to preſerve and increaſe timber; but if it is either through neglect of planting, or putting the laws in execution, or any other reaſon, that the greateſt part of the nurſeries are extinct and appropriated to other uſes; from what cauſe is not material, if both root and branch are deſtroyed. Can any law preſerve or increaſe that which has no being?

And there is hardly a county in the kingdom, eſpecially thoſe near the ſea coaſts, where may not be found a great number of places, going by the names of, ſuch a wood, foreſt, grove, or park, &c. but if you aſk the ancient neighbouring inhabitants, they will tell you, they have ſeen with their eyes, or their fathers have told them, that thoſe places were once full ſtocked with the very commodities from which they now only take their name. And are either turned into arable land, or appear like uninhabited deſarts, or places only to feed ſheep.

I need not mention the places. The reader, if he looks round him, will ſee too many inſtances; and that near the capital of the kingdom.

Even his majeſty's foreſts of Dean, and the new foreſt in Hampſhire; one of which I am well acquainted with: the very nurſeries of the navy, are ſhamefully neglected and laid waſte, and for miles together there is ſcarce an oak to be ſeen in ſome places of the former: and amazing it is to ſuppoſe, that in eleven thouſand acres, which, in the reign of Charles the ſecond,

ſecond, were appropriated by parliament to be ſet apart for the growth of timber for the uſe of the navy, there are very few more loads of full grown timber than there are acres of land on which they grow.

And ſuch a general ſtupefaction has taken place through all degrees of men in this nation in the neglect of our timber, as if we were either inſenſible of our danger, or ſpurned at the means of our preſervation.

Aſk his majeſty's purveyors of the different royal yards, and they will tell you the melancholy decreaſe and neglect of this commodity in the different tours they make. Aſk the ſhipwrights in the different parts of the kingdom, whoſe buſineſs it is to know from whence they are to receive their ſupply, and on which their livelihood depends, with united voice they will declare the increaſing difficulty they labour under. Aſk the principal dealers in timber, who have, and do, ſupply, both the navy, and merchants yards; they will all give teſtimony to this mournful truth.

That part of Great Britain called Scotland, whoſe trade has increaſed ſince the union beyond meaſure, particularly the South parts, is quite exhauſted of oak timber for ſhip building. What ſupply they have had for many years in the principal port of Glaſgow, and others on that coaſt, has been from Liverpool, Cheſter, and North Wales.

Whitehaven, that flouriſhing inlet, whoſe increaſe of trade of late years is ſurprizing, and the number of ſhips belonging to it doubled, on account of the inexhauſtible mines of coals, which ſupply the Iriſh market, and particularly the metropolis; together with her increaſing tobacco trade, which vies with moſt of the out-ports, beſides all other trade, appears only to be yet in her infancy. And, for want of room for her ſhips, has been obliged to contend with the boiſterous waves, in extending her piers into the ſea; and being

being only a dry harbour, requires the beſt of Britiſh oak, to ſuſtain the ſhocks her ſhips meet with in bad weather.

The country all round affords no ſhip timber. Her chief ſupply, for twenty years paſt, has been, the counties of Flint, Denbigh, Caernarvon; round South Wales, as far as the port of Chepſtow, in Monmouthſhire: and having drained ſeveral of theſe places, her principal builders are ſupplied, at this preſent time, from the inland counties of Stafford, Shropſhire, and Cheſhire.

The port of Lancaſter, formerly of no repute, but whoſe commerce is now largely extended, both in the Weſt-India and African trade, has no oak near her; but receives her ſupply from the ſame quarter as Whitehaven.

Liverpool is the next thriving port that comes under our notice.

In the year 1565, as appears by the town's books, there were 130 houſholders and cottagers; and the number of barks and men was as under.

Veſſels.	Tons.	Men.
1	40	12
1	36	10
1	30	8
1	20	7
1	16	6
1	15	6
1	15	5
1	15	5
1	12	5
1	12	5
1	6	3
1	6	3
12	223	75

And from the year 1760, to the year 1761, the number of ſhips cleared out of the dock office was as follows.

Ships.	Tons.	Rates.	Caſh. £.	s.	d.
548	9796	at 2d.	81	12	8
183	7144	at 3d.	89	6	0
406	25242	at 4d.	420	14	0
40	5355	at 8d.	178	10	0
31	5448	at 12d.	272	8	0
130	17395	at 18d	1304	12	6
1338	70380		2347	3	2

And from the year 1730, to the preſent year 1763, it appears that the trade is increaſed treble.

It is the third, if not the ſecond, ſea-port in the kingdom, conſumes more ſhip timber perhaps than any other, except the port of London.

Her chief ſupply is the ſouth part of Lancaſhire, Cheſhire, Shropſhire, part of Staffordſhire, and Flintſhire. But I can ſay from my own knowledge (and I have likewiſe the teſtimony of the oldeſt timber merchants and ſhipwrights) that the far greater part has been cut down, in the ſpace of thirty years. And though there is in many places of theſe counties young timber coming forward; yet the conſumption being much greater than the growth, without greater regard is paid to planting we muſt very ſhortly ſhare the ſame fate as our more Northern counties.

If from Liverpool we trace the coaſt of Wales through Flintſhire, Denbighſhire and Caernarvonſhire, counties which have been extreamly well ſtocked with timber, and are at preſent part of the magazines for Liverpool, and the North, as has been obſerved, we ſhall find them much exhauſted. If we proceed to Merioneth-

ſhire;

ſhire; this country has been much drained of her timber: yet there are ſeveral fine parcels of timber inland; but the country is ſo mountainous, that no carriages can be drawn. And after the timber has been cut down, they have been obliged to ſaw it into boards, or thin plank, and tranſport them over the hills, by a ſingle plank faſtened to each ſide of a horſe. There are, according to my information, ſome very good parcels of timber, belonging to Mr. Campbell, near the ſea-ſide in this county, to the amount of ten thouſand pounds value.

In Cardiganſhire and Pembrokeſhire we find very little timber; and particularly Pembrokeſhire, where Milford Haven is ſituated, one of the fineſt harbours in Europe, and the beſt in the three kingdoms, where a ſtrong fortification is building, at Patty Church, near Pembroke. And at Nayland Point, on the oppoſite ſide, is building a ſhip of ſeventy-four guns, for his majeſty's ſervice. But ſo effectually is this county ſtript of navy timber, that we are not able to purchaſe ſo much as a futtock to put in her.

Indeed the Right Honourable Sir John Phillips, and ſome few other public ſpirited gentlemen here, have and do encourage nurſeries. And they, in time, will have large quantities of timber. And pity it is, that all the reſt of the gentlemen in the county do not follow the laudable example. For it is very manifeſt, that both the ſoil and ſituation near this excellent harbour would well anſwer for propagating oak timber. And according to the account of the ancient inhabitants, large woods formerly grew on Moliſton mountain, where ſcarce a tree is now to be ſeen, and is a large extent of ground, very fit for the planting of timber.

If the ſame due attention be paid to this harbour by the government as, by the works now carrying on, ſeems to be in view, it may be obſerved that this is

one of the beſt ſituated places in his majeſty's dominions to erect a dock-yard in. And (provided they would now ſet about planting in earneſt) by the middle of the next century might have a ſufficient quantity of timber for building and repairing his majeſty's ſhips of war. And it lies ſo contiguous to the Britiſh Channel, the Severn, and the North coaſt of Wales, that, in time of war, it would be out of all danger of having its ſupplies cut off by the enemy's privateers.

From hence we proceed to Caermarthenſhire and Glamorganſhire, where very little timber is remaining. The complaints of the ſhipwrights and dealers in timber, in ſeveral of theſe counties, are worthy our notice; for in about twenty or thirty years, the greater part of the timber and nurſeries have been deſtroyed, not for ſhip-building, but to ſupply the furnaces and forges, which abound in this country, &c. and if continued in the ſame manner and exceſs as they are at preſent, it will not be a great number of years before the whole kingdom be as effectually drained as the plains of Saliſbury.

We come now to the great rivers, Severn and Wye; by whoſe ſtreams the flouriſhing city of Briſtol, and his Majeſty's Yard of Plymouth have been long ſupplied. Theſe are the grand magazines for almoſt half the nation, and take in the counties of Monmouth, Hereford, Shropſhire, Montgomery, Radnor and Brecknock, Worceſter and Glouceſterſhire. And I am not only particularly acquainted with moſt of theſe counties; but likewiſe with the univerſal complaint of the timber merchants reſiding in them, of the ſcarcity of full grown timber, and the neglect of planting; and the remains of theſe ſupplies will ſoon be cut off, if not timely remedied, tho' there are great quantities in the Weſt of Shropſhire and Herefordſhire ſtill remaining; but the expence of carriage is very heavy.

Indeed

Indeed I am told, that ſome part of the foreſt of Dean is now ſet off to be incloſed, and planted with oaks. And pity it is, that the whole of it is not appropriated to that uſe, as it is ſo excellent a ſoil for the purpoſe, and for the moſt part full of buſhes, where thoſe ſtately oaks grew, which ſo lately were the means of humbling France and Spain.

If we croſs the Severn, or rather Briſtol Channel, into Somerſetſhire, we ſhall find here and there plants of the fineſt elms; but according to the report of the country, they are nearly upon the ſame decreaſe as the oak timber. And in regard to the oak, the complaint of the decreaſe is ſtill more grievous. And in my travelling different ways through the country, they appear only here and there a ſmall parcel. If I may be allowed to uſe the ſimilitude, like a beacon upon a hill.

If we view Devonſhire and Cornwall, we behold a duller proſpect. In thoſe parts where I have travelled, and according to the beſt intelligence I can procure, there is little or no ſupply of timber fit to be ſerved into his majeſty's yard at Plymouth. And, in moſt places, were it not for the hills, that obſtruct the view, you might ſee from ſea to ſea.

Dorſetſhire and Wiltſhire, I am told, do not ſo much as afford oak timber ſufficient to build the ſmall veſſels to maintain the fiſhing trade, that is carried on in the adjacent ports. And for many miles thoſe counties are ſo effectually drained, as to have ſcarcely the appearance of a ſhrub: yet they are as capable of improvement, and as full of nouriſhment, for the growth of oak, as any counties in the kingdom.

Hampſhire, Suſſex, Kent, and Eſſex, on the ſea coaſt; Surry, Berkſhire, and Oxfordſhire, on the Thames, and Iſis; theſe appear to have been the grand magazines for ſupply of his majeſty's yards of Portſmouth, Chatham,

Chatham, Woolwich and Deptford; the city of London, and the builders in the river; and are at preſent the only reſource for the ſouth ſide of the kingdom. Such a number of capital ſhips have been built in the two late wars, that it is amazing thoſe valuable mines of oak are not effectually rooted up! Indeed, ſo great has the conſumption been, that one of the moſt eminent timber dealers of the county of Suſſex now living, has declared to me, that there is not now, as he verily believes, more than one tenth part of the full grown timber, ſtanding or growing, as there was when he entered into buſineſs, forty five years ago. Another eminent dealer ſays, there is not one eighth part ſtanding: another ſays, one tenth, during that ſpace of time: and another ſays, that three fourths have been cut down in the ſpace of fourteen years.

If it appears, on a cloſe inſpection and examination of the different counties on the ſea coaſts and navigable rivers of this kingdom, that they are ſo effectually drained of their navy timber, and nurſeries, it is very manifeſt the preſent laws are inſufficient.

Another cauſe may be given, that does not a little contribute to the deſtruction of our woods and nurſeries, which I apprehend to have its foundation in French policy, which has been too much experienced in this kingdom.

The taſte of modern architects, in chuſing the ſituation of gentlemens ſeats, has, and does at this time much tend to the deſtruction of our natural ſtrength.

Formerly the grandeur of our noblemens and gentlemens ſeats was much increaſed by the vaſt quantity of woods, parks, and groves of timber growing all around them. So that, properly ſpeaking, they appeared at a diſtance, as in the midſt of a wood, and were only to be ſeen through the avenues leading to them. A vacant ſpace of ground round the manſion

houſe

houſe for their ſumptuous gardens, meadows, &c. for family uſe, was deemed ſufficient. Thus ſituated they were ſheltered from ſtorms and tempeſts, and had the pleaſure of viewing from every apartment the progreſs of their labours; ſtill keeping in view the grand deſign, the naval power of Britain.

When a little cloyed with enjoyment, or to retire from buſineſs, or for the ſake of meditation, a walk for the ſpace of a furlong, or little more, leads the wealthy inhabitant into a ſpacious wood. The variety of the ſcene revives his drooping ſpirits. On the branch of a full topt oak, at a ſmall diſtance, the blackbird and thruſh warble forth their notes, and, as it were, bleſs their benefactor. A little farther, the turtle dove, having loſt his mate, ſends forth his mournful plaint, till, by means of echo from a neighbouring wood, paſſing through the ſilent air, the happy pair are again united. Variety of changes draw on the pleaſing hour amongſt the maſſy bodies of the full grown oaks and thriving plants. The proſpect of his country's good warms his heart. He returns and beholds his little offspring round his board, ſatiated with the views of the proviſion made for their defence in the thriving nurſeries all around. He enjoys it a while, and in a good old age lies down and dies in peace.

That this was the caſe of our predeceſſors, even in the laſt century, is plain; and it has anſwered every end deſigned. Witneſs the glory and honour, as a nation, we are arrived at.

How different is the modern taſte in the new-built palaces, or country-ſeats, of our grandees! The architect muſt conſult the phyſician, who has travelled to France and Italy for his knowledge. Great part of thoſe countries has been long ſince drained of its timber, by the ſame fatality, or neglect of planting or propagation, which prevails with us. It is deemed unhealthful

healthful to live near a wood: Monſieur has told us ſo, and the bait is ſwallowed. Here and there a full grown oak muſt be left in front, at the diſtance of half a mile: a tuft of trees on either ſide muſt be reſerved, for ornament, not for ſervice. The beautiful ſtructure muſt be ſeen at a diſtance; but no regard paid to poſterity. *Down with the oaks from the front and wings*, is the modern cry.

Thus, like the fox in the fable, that raiſes encomiums on his own defects, and would fain bring his neighbours into the ſame diſgrace, by cutting off their tails; ſo our frenchified doctors will tell you, how much more healthful it is to have the timber removed; and if we give heed to them, we may become like the deſarts of Arabia. Whereas, if gentlemen would look back into the longevity of their forefathers, they would find this doctrine all a farce; and that in age and health, they, in general, exceeded this generation.

But whatever be the occaſion, ſo long as facts demonſtrate, that the ſtate of our oak timber is actually upon the decline, it is ſelf-evident, that the laws for increaſing or preſerving it are not ſufficient to the end propoſed by them.

Let us now take a view of the Eaſt and North ſide of the kingdom.

The counties of Suffolk and Norfolk, Lincolnſhire, Yorkſhire, the biſhoprick of Durham and the North coaſt of Scotland, I am not ſo particularly acquainted with, and can only ſpeak from the information I have received; nor do I think it ſo material, as it is well known that the counties already deſcribed, are, and have been, the chief ſupply for the navy.

The numerous ports of North Yarmouth, Hull, Scarborough, Stockton, Whitby, Sunderland, Newcaſtle,

caſtle, and the North coaſt of Scotland, are ſupplied chiefly, as I am informed, from the Humber and Trent.

The great number of veſſels they employ in the Baltick and coal trade make it abſolutely neceſſary to have certain magazines of timber for the building of thoſe ſhips that are to ſupply the metropolis with coal; and it appears from the teſtimony I have collected, that though the decreaſe here is not ſo great as in the South and Weſt ſide of the kingdom, yet an ancient ſhipwright of Hull, who has lately retired from buſineſs, apprehends that near three-fourths of all the full-grown timber on that ſide of the kingdom have been cut down ſince the time he commenced a builder, and that little care is taken to encourage nurſeries. Another from the ſame place apprehends that one-half of the full-grown timber has been cut down during the late war, but that there are ſtill fine parcels of large timber remaining.

SECT. III.

Shewing by undeniable Teſtimony, the Reality of the Decreaſe in Oak Timber fit for the Navy and Merchants Service.

BRITANNIA having, through the courſe of an expenſive war, ſtretched every nerve to maintain her dignity; and now, having extended peace round the globe, it appears highly neceſſary to attend to the preſent ſtate of her magazines, and take care to be provided, at all events, againſt the machinations of her exaſperated foes; who will only wait a more favourable opportunity to attempt that deadly blow, which, for ſome hundred years, they have been continually meditating.

Dear-bought experience, and ſignal ſucceſs, has taught us, that *Heart of Oak* is not only the means of preſerving our liberty, but that by which we have made the nations tremble; and therefore prudence calls for a narrower inſpection into our reſources; and ſummonſes Britannia's ſons, from the different counties, to give a faithful deſcription of the proportionate decreaſe of her oaks in the laſt forty or fifty years; that the preſent age, by viewing the exhauſted ſtore, may fix on ſuch meaſures as may be effectual to convey to ſucceeding generations the ſame bleſſings that we enjoy.

And in order to come at a true knowledge of the decreaſe of our ſtock, thoſe perſons who have rendered themſelves famous in cutting down the ſtately oaks, for the laſt half century, are able to give the moſt proper evidence, by which the publick in general will be able to form a judgment of the truth of the premiſes. We need only have regard to thoſe counties which are, or lately have been, the magazines

zines for the navy and merchants ſervice. As to thoſe that have been long exhauſted, we ſhall either paſs over them in ſilence, or juſt hint that no ſupply can be had from thence; which is the caſe of that vaſt tract of the ſea-coaſt from the port of Glaſgow, in Scotland, to Dumfries; Whitehaven and Workington, in Cumberland, to the port of Lancaſter inclusive. Their reſources for ſhip-building being (as aforeſaid) from the ports of Liverpool, Cheſter, and North-Wales.

Let us hear the teſtimony of an ancient ſhipwright, Mr. Alexander Martin, of Ervine, written when he was on a journey purchaſing timber, dated Cheſter, April the 6th, 1763.

SIR,

In anſwer to your requeſt concerning the decreaſe of oak timber, and from whence we have our ſupply; I have been a maſter ſhipwright in Ervine twenty-one years, and am acquainted with the ports of Newport, Greenock, Ayre, and Dumfries, and we have no ſupply of oak timber for ſhip-building and repairing in all this ſide of Scotland. But our principal ſupply has been from Liverpool, Cheſter, and Moſtyn in North-Wales; and in thoſe places we find the timber much ſcarcer, and greatly advanced in price. I am, dear Sir,

Your very humble ſervant,

Alexander Martin.

Likewiſe of Captain William Miller, dated 4th of April, 1763.

SIR,

According to your requeſt, wanting my opinion, whence they are ſupplied with oak timber in the river Clyde, or Port Glaſgow, as I ſerved my ap-

prenticeſhip there, and was for ſome time employed by merchants as a maſter of work in building and repairing veſſels, the following places, to the beſt of my knowledge, both in that time, which was about ſixteen or ſeventeen years; but I believe they are ſtill ſupplied from the ſame, viz. ſtraight oak timber and anchor-ſtocks, from Virginia, New-England, &c. plank, for the moſt part, from the ſame place: the greateſt ſupply we had for building and repairing, where crooked timber was required, was from Liverpool, Moſtyn, and Conway. And indeed we could not have built a veſſel of any burden without applying to thoſe places. We had our ſmall timber from the Highlands of Scotland, fit for our boat timber: ſometimes a trifle from Dantzick. But on the whole, we could have done very little work without applying to Liverpool, or North-Wales. If the above does you any ſervice, it will alſo be very agreeable to, Sir,

Your very humble ſervant,

William Miller.

See another teſtimony from the North of England:

Whitehaven, 20th June, 1763.

SIR,

I received yours by my brother, which I copied over, and gave the letter to Mr. Palmer; according to his opinion and mine, there is ſeven-eighths of the timber for ſhip-building cut down in leſs than forty years; and the timber growing ſince is frequently cut for coal wood: and likewiſe the lords tenants, that have convenient vales to plant, will not, as the lords take it from them at pleaſure, there being a great number of furnaces all through the country, that no timber will be ſuffered to grow to its perfection. Which is from, Your humble ſervant,

John Wood.

Hear

Hear the opinion of an eminent ſhip-builder in Whitehaven.

Mr. Fiſher, Sir,

I received yours by Mr. Wood, and obſerve the contents; and my opinion of the decreaſe of full grown timber, for the laſt forty years, in this county of Cumberland, is at leaſt ſeven-eighths; and in Weſtmoreland, as much of it as is near the water, is much the ſame; and in the North part of Lancaſhire it is all cut down entirely; and there are ſo many furnaces and forges erected, both in the North part of Lancaſhire and in this county, that there is no probability of its ever riſing to what you call full grown timber again. The Earl of Egremont is lord of a great many tenancy eſtates in this county, and the wood belonged to him; but within this laſt ſeven years he has ſold a great part of them free, eſpecially the wood-ground and the wood; and the tenants were obliged to ſell their timber to help to pay for their freelidge: they all now take care to ſpring all their wood-ground, but then in ſixteen or ſeventeen years time they can ſell it for charcoal and bark; ſo that in one century they will make money of it three or four times over; and without ſome large premiums, there will never, in my opinion, be much full grown timber again in this county. I wiſh your treatiſe may have the deſired effect; and am, Sir,

Whitehaven, July 5th, 1763. Your moſt obedient ſervant, *William Palmer.*

We have the further teſtimony of Mr. Benjamin Birkett, who has been and is largely concerned as agent for an eminent company of timber merchants and ſhipwrights in Whitehaven; has ſeveral conſiderable falls going forward, both on his own account and his employers, this preſent year, in the counties

of

of Flint, Denbighſhire, Cheſhire, Shropſhire, and Staffordſhire, great part of which by land and water carriage muſt be tranſported to Whitehaven; which ſhews the difficulties they labour under there, and is a full proof of their being ſtript of their oak timber in the adjacent counties, as by his letter, dated Willington Croſs, the 11th of July, 1763.

SIR,

I received yours, dated the 21ſt ult. in which you requeſt my ſentiments concerning the decreaſe of oak timber. I have been concerned in this branch of buſineſs in ſeveral counties both in Scotland and the North of England, in which places good timber is almoſt all cut down.

And great part of the fineſt coppices neither planted again nor ſprung, which makes moſt part of the North, particularly Cumberland, to my certain knowledge, ſupplied from North and South Wales, Shropſhire, and Cheſhire; in which places, eſpecially in part of North Wales, Shropſhire, and Cheſhire (for my own part have been concerned in) upwards of ten thouſand oak trees, fit for all kinds of uſe, either for the navy or merchants ſervice, which are and will be all rooted up; and I have not the leaſt reaſon to believe, that the ground will ever be planted again. This is the common cuſtom with others in the ſame counties, as well as thoſe with whom I am concerned in. Which practice, in my opinion, in a few years, will be a great detriment to this nation, if not properly conſidered on and timely remedied. I am

Your moſt humble ſervant to command,

B. Birkett.

This brings us to the firſt magazine of conſequence, the flouriſhing town of Liverpool; where there has not

not been leſs than a thouſand ſail of ſhips built in the laſt fifty years. And we have a very intereſting teſtimony of Mr. John Okill, concerning the decreaſe. And as he is one of the oldeſt timber-merchants and builder in this part of the kingdom, his judgment carries great authority with it.

SIR, Liverpool, 20th Feb. 1763.

Yours of the 11th inſtant is now before me, contents duly noted. In anſwer thereto, as to the decreaſe of timber fitting for his Majeſty's uſe, in Lancaſhire, Cheſhire, and North Wales, I believe fifteen parts out of twenty are exhauſted within theſe fifty years. I mean, of what was growing near any navigable river, either for this port, or to be carried to any of his Majeſty's yards, ſo far as I am acquainted. As to the inland parts of the country, it will conſequently be ſo dear as not to be come at, either for his Majeſty's ſervice or the merchants ſhips.

I remember laſt dear time of corn, it was much talked of, that the honourable Houſe of Commons had under conſideration, to plant half the waſte lands with timber, the other half with corn.

As the greateſt part of commoning unincloſed may not be near any navigable rivers, I preſume there is much to be found in North and South Wales fit for ſuch purpoſes. I query, Whether it would not be more intereſting for the government, to purchaſe lands additional, as timber is ſo expenſive to remove upon a long land carriage; and as many parts of thoſe lands are very ſuitable for planting, which are eſteemed of low value, and are very convenient for ſhipping off. I am, Sir,

Your moſt humble ſervant,

John Okill.

The

The concurring teſtimony of Mr. Richard Golightly, an eminent ſhipwright.

SIR,

I received yours; and in regard to my ſentiments about the ſcarcity of timber, I have been concerned in ſhip-building near fifty years, and can ſay, that the decreaſe has been fourteen parts out of twenty, eſpecially where I have been a purchaſer, in Lancaſhire, Cheſhire, Shropſhire, Staffordſhire, and ſeveral counties in Wales. And I apprehend, that little care has been taken to ſupply the deficiency by planting. If a proper method could be found to oblige the gentlemen, who have large woods to fall, to fence and preſerve the young woods from being deſtroyed by cattle, it would cauſe an earlier growth in the timber, and be a means, in ſome meaſure, to remove the grievance complained of. I am, Sir,

Your humble ſervant,

March 29th, 1763. *Richard Golightly.*

Mr. William Yoxall, in his letter concerning the decreaſe in the county of Cheſter, ſays:

SIR, Namptwich, 26th Feb. 1763.

I received your letter, wherein you deſired I would give you my thoughts of the decreaſe of timber. All I can ſay is, that we have but little in this neighbourhood to what we had thirty years ago: And I ſuppoſe, at leaſt one-half of it has been cut in that time, ſince I have been a ſmall dealer in it.

You muſt know, this county was never eſteemed a timber county, when compared to Shropſhire and North Wales. Now Mr. Walford of Wem, who you have often dealt with, can give you a more ſatisfactory account than I can. It has been a common complaint

complaint as long as I can remember, of the decreaſe of oak timber. As your deſire is to ſerve poſterity and this kingdom, in ſupporting the navy, the grand bulwark of our country, do, with the warmeſt wiſhes, hope, that what you may write will have the deſired effect. I am, Sir,

Your moſt obedient ſervant,
William Yoxall.

We will therefore ſee what Mr. Thomas Walford ſays (on this intereſting ſubject) of Shropſhire, as it is and always was eſteemed one of the beſt timber counties in the kingdom, ſituate on each ſide of the Severn: is a great ſupplier both to Briſtol, Liverpool, and Whitehaven, and no county has more ſubſtantial dealers in it.

He declares, in his letter dated 12th of Feb. 1763.--- As to the decreaſe of full-grown timber, that is fit for ſhip-building, I am of opinion that our county hath not above two parts in ten ſtanding which it had thirty years ago; and very little care is taken to plant more.

I am your humble ſervant,
Thomas Walford.

And likewiſe Mr. Robert Palmer, near Colebrook Dale, in his letter dated 12th April 1763.

SIR,

Being largely concerned in buying and ſelling, and in falls of timber in Shropſhire, Montgomeryſhire, and other places, for ſeveral years paſt, the great conſumption has been ſuch, in compariſon of what remains, that unleſs ſome ſpeedy method is ſoon taken for the planting of young oaks, the navy and merchants ſervice will greatly want the ſame.

I am your humble ſervant, *Robert Palmer.*

We ſhall now inquire into the ſtate of oak in North Wales; where we are obliged with an eminent teſtimony of one, largely concerned in divers parts of this kingdom in the forges and furnaces, in his letter of 11th of March, 1763. Dated Conway Furnace.

From my own knowledge of Caernarvonſhire, Denbighſhire, Merionethſhire, and Flintſhire, I think there is not one third part of the wood now left growing in thoſe counties, of what there was when we began to erect the furnace here, which is now about fifteen years ago; neither timber, nor any other kind of wood. And no manner of care is taken to propagate a freſh growth; at which rate theſe counties muſt become almoſt bare of wood in a ſhort time. And the like devaſtation is committed among the woods in Montgomeryſhire and Cardiganſhire: but there are ſome good examples of coppicing the woods in ſome part of thoſe two counties, ſet of late years; and it is likely to become a general cuſtom.

I am, &c. your humble ſervant,

William Bridge.

And John Moſtyn, Eſq; of Denbigh, ſays, in his letter of the 13th of March 1763.——There certainly is great devaſtation made upon timber of all ſorts in this county, as well ſaplings as full-grown. And no ſort of care is taken to protect coppices, or propagate young ones. And there are more ſales advertiſed this year than I ever remember. I believe they amount to a third part of all the grown timber in the county.

I am, dear Sir, your friend and ſervant,

John Moſtyn.

The devaſtation made by the furnaces and forges in North and South Wales is an univerſal complaint, and merits the attention of the Legiſlature. For in many

many places of thoſe counties, eſpecially inland, both woods and groves, coppices and young ſaplings, are wholly appropriated to this very purpoſe. So that the ſhip-building, in ſeveral of the adjacent ſmall ſea-ports, is entirely ſtopt; and the builders are obliged to remove from place to place; and in a little time the name of a ſhipwright will not be known in thoſe parts of the kingdom, if not immediately remedied. For it is become a cuſtom for the iron-maſters to purchaſe all large quantities of timber in North and South Wales; and the ſhipwrights and other artificers are laid under the obligation to purchaſe from this ſet of men whatever they ſhall think proper not to appropriate to the uſe of their furnaces. So that in a few years theſe counties, formerly ſo famed for large quantities of wood, will be in the ſame ſituation with the kingdom of Ireland and other places, as repreſented by Malachy Poſtlethwaite, Eſq; in his excellent Dictionary of Trade and Commerce *, from which I ſhall beg leave to make the following quotation.

" The waſte and deſtruction which has been of the woods in Warwick, Stafford, Worceſter, Hereford, Monmouth, Glouceſter, Glamorgan, Pembroke, Shropſhire, and Suſſex," (to which I may add Cheſhire, Flintſhire, Denbigh, Merioneth, Cardigan, Montgomeryſhire, &c.) " by the deſtructive iron-works, is not to be imagined. The ſcarcity of wood is thereby already grown ſo great, that where chord wood has been ſold at five or ſix ſhillings per chord, within theſe few years, it is riſen to upwards of twelve or fourteen ſhillings per chord; and in ſome places it is all conſumed.——And if ſome care is not taken to

* Vol. I. p. 518.

preſerve our timber from theſe conſuming furnaces, we ſhall certainly ſtand in need of oak to ſupply the Royal navy, and alſo ſhipping for the uſe of the merchants, to the great diſcouragement of ſhip-building and navigation, upon which the ſafety and figure of theſe kingdoms as a maritime power depends." And he ſays further, " It is generally allowed, that within theſe ſeventy years Ireland was better ſtored with oak timber than England; but ſeveral gentlemen from hence, as well as thoſe reſiding there, ſet up iron-works, which, in a few years, ſwept away the wood to that degree, that they have even a ſcarcity of ſmall ſtuff to produce bark for their tanning, nor ſcarce timber for their common neceſſary uſes. The diſtreſs has been ſo great, that they have been forced to ſend to England and elſewhere for bark, and to Norway, &c. for building timber, and ſuffer their large hides to be exported to Holland, Germany, and Flanders, where to a great loſs in that manufactory they have been tanned."

It is well known they have no ſupply of bark and timber, but are ſupplied from Liverpool, Cheſter, and North and South Wales, which will ſhortly bring this country into the ſame diſtreſs.

This leads me to conſider the ſtate of Pembrokeſhire and Carmarthenſhire, in regard to which I have the opinion of an ancient Briton, a man of veracity and property, in his letter dated March the 15th, 1763.

S I R,

In anſwer to your requeſt about the decreaſe of oak timber in Carmarthenſhire, Pembrokeſhire, and part of Cardiganſhire, in which counties I am well acquainted, I apprehend there is not now ſtanding or growing

growing one part in ten of full grown timber that there was thirty years ago, the time I entered into trade.

I am,
With great eſteem,
Your very humble ſervant,
George James.

He further ſays,

About five years ago, in the year 1758, I was in converſation with Mr. Andrews, purveyor of Plymouth yard, when I aſked him as to the decreaſe of oak timber, and what we ſhould do in another century? His anſwer was to this effect, that in the ſpace of fifty years we ſhould be entirely void of full-grown timber, if no care was taken by the Legiſlature.

Yours, &c.
George James.

Another teſtimony from the ſame part is a ſtrong confirmation of the former, and ſhews that the decreaſe is much more rapid of late years, as is reaſonable to expect in proportion to the increaſe of the conſumption.

Mr. Fiſher, Sir,

In anſwer to your requeſt, I have been in trade as a ſhip-builder theſe thirteen years; and ſince that time eſpecially, and ſome times before, I knew moſt of the timber in this county, and a great part of the counties adjacent, and find the conſumption of oak timber to be at leaſt eight times greater than it was at that time.

I am, Sir,
Your humble ſervant,
Caermarthen, March 13, 1763. *Phil. Morgan.*

Mr. Howell,

Mr. Howell Williams, of Tenby in Pembrokeſhire, maſter ſhipwright, in his letter of the 11th of March 1763, ſays,

S I R,

My forefathers were all bred ſhipwrights; and I have known the woods in this country ever ſince I was a youth; and they have ſhewn me ſeveral large pieces of land, which were in their memory full of growth of fine woods, which were reduced to coals for the manufactory of iron; and I have known ſeveral groves of timber trees reduced to the ſame purpoſe: the old ſtock not kept, nor any planted in its ſtead; which has been the common practice in this county of late years.

I was in a neighbouring county, with a gentleman employed by the government, where we ſaw, in ſeveral places, great deſtruction of timber; and meeting with ſome agents of a gentleman in the iron way, requeſted of them how many butts of oak, big and ſmall, might be deſtroyed by the purchaſes of their maſter yearly? They aſſured us, they felled ſeveral hundred thouſands yearly, which were moſtly reduced to coals. I think, if ſuch diſtructive practice is carried on for a few years, it will be the ruin of poſterity, and, in all appearance, likely to be the utter ruin of our branch of buſineſs, which is the great ſupport of the nation. No one can have more earneſt deſire to have your undertaking perfected to your ſatisfaction, than, Sir,

Your moſt obedient ſervant,

Howell Williams.

And in regard to Brecknockſhire, hear what Mr. George Lomax ſays, who is no timber merchant, nor does the county afford any of note.

S I R,

SIR,

In compliance with your requeſt concerning the decreaſe of oak timber in this county, I humbly apprehend it is at leaſt two thirds more than what I have remembred it; having lived in this Town of Brecnock upwards of thirty years. Witneſs my hand, 17th day of March, 1763.

George Lomax.

Having gone through moſt of the Welſh counties, let us return to Worceſterſhire, where we have the opinion of a moſt eminent timber dealer, Mr. John More (being in partnerſhip with Mr. Drew) well known at the Navy Board for the great contracts ſupplied to Plymouth yard during the late war; nor is there a man in the counties he gives his ſentiments on better acquainted than he is, as by his letter, dated Worceſter, March the 23d, 1763.

SIR,

In anſwer to your letter concerning the decreaſe of oak timber fit for the navy it is my opinion, that in the counties of Worceſterſhire, Glouceſterſhire, Herefordſhire, and Monmouthſhire, there is not now ſtanding one-fifth part there was forty years ago, except in the foreſt of Dean, where, twelve years ago, I ſurveyed twenty-five thouſand load of full-grown timber; and perhaps there may be one-half of that quantity expended ſince that time. I think it highly neceſſary that ſome ſpeedy method ſhould be taken for propagating oak timber, both for the navy and merchants ſervice. And am, Sir,

Your humble ſervant,

John More.

How

How melancholy a deſcription of the ſecond, if not the firſt, grand magazine for the navy! To ſuppoſe there is not thirteen thouſand load of full grown timber, in one of the principal foreſts, ſet apart for the uſe of the navy; which quantity is ſcarce ſufficient to equip ſix ſhips of the line.

We have the further teſtimony of Mr. John Smith, late of Worceſter, but now agent for the eſtate of the late Mr. Whitaker near Milford-haven.

SIR, March the 7th, 1763.

As you deſired my opinion in grown timber, I have been concerned in that branch about forty years, and may ſafely ſay, that there is not more now ſtanding than one-fifth part in Worceſterſhire and Warwickſhire, where I have been moſtly concerned in that buſineſs. And am, Sir,

Your moſt humble ſervant,

John Smith.

Take alſo the ſentiments of another eminent dealer of extenſive knowledge.

SIR, Chepſtow, 5th June 1760.

As to your former favour, relating to the decreaſe of oak timber, I muſt and do aſk your pardon for not anſwering ſooner. And now can only acquaint you, that by all appearance in theſe neighbouring counties, Glamorganſhire, Monmouthſhire, Glouceſterſhire, Herefordſhire, and Shropſhire, I think it looks as tho' fate had deſigned almoſt an entire deſtruction of oak timber, by the quantities I have known fallen within theſe fifteen years back; and do apprehend, that except the growth of young timber is more taken care of and preſerved in other parts of England than is here at preſent, ſuch timber as is fitting for his Majeſty's

navy

navy will, in a few years, be ſo greatly exhauſted, and ſo ſcarce, within the reach of any navigable river, that the value of the timber will not pay its own carriage to his Majeſty's yards; and of courſe the dealing in that way will ſoon be ended, with,

Your humble ſervant at command,

William Williams.

Hear the opinion of an eminent ſhip-builder in Briſtol, Mr. Edward Matthews; and as their ſupply comes from the Severn to a market, it cannot be ſuppoſed they can be acquainted with the decreaſe but by the conſequences, the badneſs of the quality, and the increaſe of the price. See his letter, dated the 24th of Feb. 1763.

SIR,

The decreaſe of timber in our parts fit for the navy, and our work likewiſe, is very eaſily accounted for; for thirty years ago there was not one-third part of the ſhipping belonging to this port as is now. And only look back, and ſee how our navy is increaſed.

But the greateſt evil is, the coopers cutting all the buts for caſks to hold cyder, which I wiſh could be prevented, as we have land enough in America to provide ſtaves. We have not the choice, in four times the timber, as we had ten years ago.

I am your humble ſervant,

Edward Matthews.

I am very ſenſible, that three-fourths of all the clean but-ends of the moſt valuable timber, in theſe parts of the kingdom, are appropriated to the uſe of the cooper and joiner. And, as the whole ſtock of large timber is ſo greatly decreaſed, if a ſtop could be put to this deſtructive method, it would be a means of

continuing timber for the navy, and the merchants, much longer.

If we croſs Briſtol Channel, and hear the report of Somerſetſhire, Devonſhire, and Cornwall, as it is well known they are not timber counties, we need not ſpend much time in proving the decreaſe. But it appears, the decreaſe has been nearly the ſame as in many of the fore-mentioned counties; as by the teſtimony of Mr. George Rooke, agent and partner with Joſeph Biddlecome, Eſquire, of Rotherhithe; who, at this time, have ſome conſiderable falls of timber going forward in ſome of thoſe counties, as by his letter, from Crediton, of the 8th of March, 1763.

SIR,

As you mention, you are going to write a treatiſe of the decreaſe of oak timber; and, for what I can learn, is near about one-fifth part of what there was forty-years ago, in Devon, Dorſet, Somerſet, and Cornwall; and not one-tenth in Hants, Surry, Kent, and Suſſex, &c.

So Sir, this is the beſt account I can give at preſent: and I wiſh you ſucceſs in your treatiſe;

and am, Sir,

Your humble ſervant,

George Rooke.

The next is the teſtimony of a gentleman of veracity, and well known for his experience and extenſive acquaintance in the timber way; being one of his Majeſty's purveyors in Plymouth.

Dock, 18th March 1763.

Mr. Roger Fiſher, Sir,

Yours of the 8th paſt I received, wherein you deſire to know my ſentiments, how I have found the decreaſe

creaſe or increaſe of oak timber in the counties I have been engaged in; and that you and the timber-merchants you are acquainted with agree, that there is not one-fourth part of full-grown timber, fit for the navy, that there was thirty years ago.——In the firſt place, Increaſe there hath been none, that has fallen under my inſpection: Decreaſe, very conſiderable; for I dare ſay, there have been more capital ſhips built in theſe thirty years laſt paſt, than there was for one hundred and fifty years before.——You ſay nothing of forming any ſcheme for propagating that ſpecies: if I can be of any uſe that way, let me know in your next. I am, Sir,

Your moſt humble ſervant,

William Andrews.

Hitherto the decreaſe of oak in the principal timber counties we have paſſed through ſeems to be, on a par, four-fifths deſtroyed in forty years: But as we go towards the capital, I fear the account will be leſs favourable. I ſhall therefore paſs by the plains of Wiltſhire and Dorſetſhire (there needs no teſtimony to prove, that both foreſts, woods, and groves, yea and almoſt the hedges, are extinct, for a great many miles in theſe counties,) and ſhall proceed to Hampſhire; and hear the opinion of Mr. William Steele, in his letter, dated Broughton, in Hampſhire, April the 13th, 1763.

SIR,

I duly received yours of the 27th laſt; and in anſwer acquaint you, that I am of opinion, the decreaſe of oak timber for forty or fifty years paſt, in the South, has been greater than in other parts of the kingdom. My father, who has been a contractor of long ſtanding, thinks there is not now growing one-

eighth part of timber fit for the navy of what there was ſince his remembrance.

It is, as you obſerve, a melancholy truth; the very being of our nation as a maratime power greatly depending on our timber. Several cauſes may be aſſigned for the decreaſe: The principal I apprehend are, that the conſumption occaſioned by ſo large a navy and extenſive trade has exceeded the growth. Perhaps to this the want of œconomy in the uſe of it (I would not ſay where) has greatly contributed. And the life of diſſipation many of our nobility and gentry lead, has occaſioned the deſtruction of many hundred thouſands of fine oaks before their maturity; ſo that many eſtates, which formerly furniſhed the navy with great quantities of large timber, have now none but what is ſmall. I wiſh you ſucceſs in your undertaking, and am, Sir,

Your humble ſervant,
William Steele.

P. S. I have obſerved in many places, that abundance of young timber has been nurſed up of late years, which I hope will become general.

We have likewiſe a very intereſting account from one whoſe axes have made whole foreſts, woods and groves to tremble; Mr. Richard Chitty, now of Golden Grove in Caermarthenſhire, formerly of Singleton in Suſſex, in his letter dated Golden Grove, Feb. 21, 1763.

SIR,

Yours of the 11th inſtant I received, relating to the quantity of large timber now ſtanding, &c. and in anſwer, I have been a contractor above forty years, and know great part of the timber counties in England,

land, and am the oldeſt contractor; and no man living has viewed more timber ſtanding than myſelf: and in my opinion, there is not more than the tenth part of the government timber ſtanding now as was when I began trade.

I am your humble ſervant,

Richard Chitty.

Let us now attend to an eminent builder in the river, and hear his ſentiments of the decreaſe of oak timber: and, as he is a gentleman of extenſive knowledge and acquaintance, his teſtimony will be of material ſervice, as by his letter of the 25th of Jan. 1763, where he ſays,

I have particularly conſidered the heads of your Heart of Oak pamphlet, and wiſh it was in my power to furniſh you with any hints that may be of ſervice. I am thoroughly ſenſible of the great decreaſe of timber, and the little care taken, both by the government and private perſons, in planting or preventing cattle from deſtroying the young oaks, as they come up in the foreſts: alſo, the great deficiency in the law, that does not make it felony to cut down young oaks for fire wood, or for ſale. I am well acquainted with the New Foreſt in Hampſhire, and there the timber would plant itſelf, and there would be near ſufficient to ſupply Portſmouth yard, was it fenced in to keep out the young cattle of all kinds from deſtroying the young trees as they come up. All the purveyors who have been in theſe parts are of my opinion; and acquaint me that the decreaſe of timber is ſo great, that there are very few large parcels remaining. The principal are the late Mr. Dawtry's, in Eſſex and Suſſex, and Sir Simon Stuart's in Hampſhire. Without ſome method is ſpeedily taken, another century muſt woefully

fully experience the want of it. Mr. Gabriel Ackworth, and Mr. Goldſworth, purveyors of Deptford and Woolwich, gave me the account. The latter you know, and I dare ſay, if you think it neceſſary, will inform you more particularly than I can, if you write to him.

I am yours, &c.

Henry Bird.

And in his letter to me of the 2d of April, 1763, he obſerves,

I have been this week at Guildford wharf, in company with two of the moſt principal timber dealers, Mr. William Richardſon and Mr. William Morris. I made all the enquiry poſſible; and the only parcels of timber that they know of, of any conſequence, that lies to come in to that wharf, are the late Mr. Dawtry's, now in the poſſeſſion of ——— Luther, Eſq; this is a very large parcel, and grows near Petworth in Suſſex; the other is Sir Simon Stuart's, and grows near Heartley Row in Hampſhire; they know of no other of conſequence in all that part of the country. Guildford is the greateſt timber wharf in England; I dare ſay there is now ten thouſand load of oak timber on it.

The names of the principal timber merchants in London are, Abraham and Henry Mills, William Richardſon, and Joſeph Biddlecome; in Kent, Meſſ. Prentice; in Surry, Jeremiah Howard, William Morris, Robert Bryant; in Berkſhire, Meſſ. Bayly, and William Clements; in Hampſhire, Joſeph White, William Steele, Thomas Monday, John Raſhley, Eſq; and John Clewer; in the Iſle of Wight, William Harding; in Eſſex, Mr. William Dearſley; and all at times have told me, that in another century they do not know

know where timber will be got to keep up our navy, and that there is no proviſion made by planting.

I am yours, &c.

H. Bird.

As Mr. George Goldſworth, purveyor of Woolwich yard, has been ſo obliging to furniſh us with his ſentiments of the decreaſe in his letter of the 28th of March 1763, I here inſert it.

I received yours of the 8th ult. wherein you ſignify the many counties you have had experience of, with the number of years you have obſerved the decreaſe of oaks, and require my ſentiments.——In anſwer,

The Hon. Surveyor of the navy, with ſeveral of the principal maſter ſhipwrights, and moſt eminent timber merchants in the river Thames, with your humble ſervant, were directed to attend a committee of the Honourable Houſe of Commons, 9th March 1756, to anſwer the following queſtions, viz.

If the quantity of oak timber was decreaſed? If the growth would not ſupply the demand of the navy, architecture, and merchants conſumption? And if the conſumption was greater than the growth? Whether ſeveral commons, now uncultivated, might not be of ſervice under proper regulations, to the producing a ſufficient quantity of oak timber, to ſupply the demand of the navy, and merchants ſervice? (the bulwark of our nation.) The general opinion was, that the large oak timber was much exhauſted; upon which, the ſeveral acts for preſerving oak timber were directed to be read, and an act paſſed for planting thoſe commons.

My anſwer to the queſtions, viz. The time I had been in employ, with remarks made, was, that in 1737 the mean price of oak timber, viz. 100 feet

meetings,

meetings, 3*l.* per load; in 1743, 3*l.* 10*s.* per load; in 1745, 4*l.* per load; and 1756, 4*l.* 5*s.* per load. Conſequently, the quantity decreaſed in the above proportion; and the price has not been raiſed ſince the above time, notwithſtanding the number of men of war built in the royal and merchants yards.

The act for planting (or, what I think better, for ſowing) the quantity of acres, for what is grubbed, be put in force; alſo, that it be felony to lop oak trees: likewiſe to encourage the ſowing of acorns in all waſte grounds where the ſoil is clay not leſs than three feet deep, nor too wet, for fear of ſhakes.

Much might be ſaid as to the proportion of wood lands to be on each eſtate; alſo in the royal foreſts; but that is in the power of our ſuperiors. I am confident there is no danger of the want of timber in this kingdom if the higher powers take it into conſideration. For if many parts of this kingdom were ſown with acorns, (why I mention ſown with acorns, is, that in tranſplanting oak, there is great danger of wounding the tap root) and fenced for eight or ten years from the cattle browſing, they would in a few years ſupply us with ſufficient timber, as we are in ſo great a proſpect of a long and happypeace; and particularly, if ſome regard is paid to the ſeveral books publiſhed of late; as, the Modern Druid, by a clergyman; one by a gentleman of the law, concerning the manner of chuſing timber to grow circular and uſeful for ſhipping. I heartily wiſh you ſucceſs, and am,

Your humble ſervant,

George Goldſworth.

We have likewiſe the ſentiments of an eminent timber dealer of Romford, in the county of Eſſex; in his letter of the 19th of April, 1763.

I am

I am favoured with yours, and in anſwer thereto, do agree with my brother timber dealers, that three fourths of the full-grown timber have been cut down in the ſpace of fourteen years: and that care ſhould be taken by thoſe in power to ſupply the deficiency, by planting, and afterwards by preſerving the ſame.

I am, Sir,

Your humble ſervant,

William Dearſly.

We are likewiſe favoured with a very eminent teſtimony, not only of the decreaſe, but likewiſe of the eaſy method that has hitherto been productive of the nouriſhment and growth of large quantities of timber, and would ſtill do the ſame, was it purſued in a diſcreet manner.

Rotherhithe, May the 9th, 1763.

I received yours of the 12th ult. which I ſhould have anſwered before, but at this ſeaſon of the year am much from home.

It is moſt certain, that there is a very great decreaſe in the quantity of large timber in all the neighbouring counties; in particular thoſe of Surry, Kent, and Suſſex. In the Wield of each, within the compaſs of forty years, almoſt all the principal timber is taken down, and in general only ſmall remains; and but little regard is paid to the improvement of the growth of timber.

In former leaſes it was a condition not to plough within a rod of the hedges; within which places has been produced many thouſand loads of fine timber. But ſo far is it from being ſo now, that the plough goes ſo near the hedge, that you cannot walk round a field without tearing your coat.

The counties I mention are ſo adapted by nature for the growth of timber, that I have often ſeen a field

 that

that has been ploughed and laid up for the ſummer fallow, if no cattle has been in it to browſe off the heads, there has young oaks enough appeared to have made it a wood, if ſuffered to grow: and that I apprehend would be the caſe of the whole Wield; ſo that by the acorns ſpread by the wind, and ſcattered by the rooks, if the growth was encouraged there would be no occaſion to plant trees in thoſe counties, nor indeed in any other, in my opinion; for nature would do the whole for us, if we would take care to keep the cattle from eating them when they appear. I have often obſerved, and doubt not you have done the ſame, where there is any number of buſhes together, you will find young oaks will come, if the cattle cannot reach them. If you receive any information from this epiſtle that will be of ſervice to your work, it will give pleaſure to, Sir,

Your moſt humble ſervant,

Henry Mills.

How ſtriking is the repreſentation of this eminent dealer! whoſe extenſive dealings and knowledge there are few to be compared with.

Theſe melancholy truths are further verified by an eminent dealer, or maſter ſhipwright, of Hull; by whoſe river the chief part of the ſea-ports on the eaſt and north ſide of the kingdom are ſupplied with timber.

Mr. Fiſher, Sir,

I ſhould have anſwered yours ſooner, but have been troubled with the gout.

Your requeſt have anſwered, as a brother chip. I have been forty years a builder; but have left it off ſome time ſince, and live retired with my family. I wiſh you joy in building the ſeventy-four gun ſhip, alſo in your preſent undertaking.

As

As to the large timber, from thirty to forty years ago it has decreaſed much, by the navy being ſo much augmented.

It may be now about a fifth part, or thereabouts, upon an average.

I am, Sir, your humble ſervant, in any thing I can ſerve you with,

Hull, April the 30th, 1763. *John Shields.*

Hear the opinion of Mr. Joſeph White, an eminent dealer at Anfield in Hampſhire.

S I R, Anfield, May the 8th, 1763.

I am favoured with your letter, purporting a queſtion I am at a loſs to anſwer. But that there is a great decreaſe in large oak timber is viſible to every body; and I am inclined to think there is not in Hampſhire at this time one-fourth of the quantity ſtanding, fitting for the navy, that there was forty years ago.

As to ſucceſſion, great care has been taken on moſt of the private eſtates in this country. On ſome indeed too many trees have been let up. For unleſs they have proper room to grow they will never get to the ſize fitting for the navy. But where there are enough upon the ground the remedy is eaſy; for they may be thinned at any time.---And this, to the great prejudice of timber, is much neglected.

On ſome of the publick foreſts you may ſee here and there an old decayed tree, and be told by old men how full it formerly was with timber; though now reduced to almoſt naked commons. And the grubbing of coppices and hedge-rows have not contributed a little to the general decay. The birds would, with a little help (by their dropping the acorns,) replant the old and even raiſe new woods, were not the trees, as

they come up, expoſed to every mouth feeding upon the publick ground. Were all the foreſts, &c. turned into private property, I think it would be of publick good. A man's own intereſt would then cauſe him to encourage the growth of timber: and there is nothing but ſelf-intereſt will make men go about any thing in good earneſt.

Great part of the immenſe quantity of furze commons, at preſent but of little uſe, are capable of being turned into fruitful woods. If all ſuch lands were incloſed it would be of great utility to the preſent ſubject. The hedge-rows of ſuch a part as may not be turned into coppices or woods would be no inconſiderable thing.

If in threeſcore years the navy-timber is ſunk even one-half, and the quantity of ſhipping perhaps more than doubled ſince that time, what may be the conſequence of ſuch another period?

If the demand for timber be ſo greatly increaſed, the the nurſeries ſhould be ſo in proportion; and more eſpecially as the old ſtock is ſo extreamly exhauſted. And after all this, the long time requiſite to raiſe large timber ſhould not be forgot.

I ſhould be glad if any of theſe incoherent thoughts of mine may be of uſe to your intention, for I wiſh it ſucceſs; and ſo muſt every Engliſhman, as well as,

Sir,

Your moſt humble ſervant,

Joſ. White.

Another eminent dealer in Surry produces us a ſtriking inſtance of the great decreaſe of full-grown timber in the laſt twenty years.

Good Sir,

I received your favour the 18th of April, and would have wrote ſooner, but have been enquiring into the affair

affair ſince I received yours; and think your obſervation is very right in regard to the decreaſe of full-grown timber. I have been a dealer in the timber way for twenty years; and ſince my time I do think, that three-fourths of that ſize are cut down. And in my opinion, I think if the government and landed intereſt will take into conſideration and encourage planting, it would be a good thing to this nation.

I remain,
Sir,
Your very humble ſervant,
The 23d May 1763. *William Morris.*

We have another teſtimony of an eminent ſhipwright, or timber merchant.

Mr. Fiſher, Sir, Hull, July 23d, 1763.

Your favour of the 26th April came in courſe, which had got miſlaid, only found it the other day, or ſhould have anſwered it before now; however, obſerve the contents, for anſwer.

A good deal of timber has gone through my hands the laſt war. I don't know but near half of the full-grown timber in this part of the country has been cut down during the war, though we have a great deal left in ſome parts, which is both large and fine timber. I am, Sir,

Your humble ſervant,
Thomas Hodgſon.

We have likewiſe the opinion of Mr. Richard Elliſon of Thorne.

Thorne, Aug. the 17th, 1763.

In anſwer to yours, the decreaſe of full-grown timber ſince I was in trade, viz. about twenty years, is very

very conſiderable, but I cannot judge in what proportion; the greateſt deſtruction to the growth of timber in theſe parts, is the diſparking of parks, and the improvement of the land, as in general they now ſtub up all the timber, both in the parks, and runs, and hedges, by which means in a great meaſure the growth of crooked timber will be deſtroyed; alſo the cutting of ſpring woods at twenty years growth to ſupply the forges and furnaces with coal, will be attended with fatal conſequences; the greateſt part of the woods are ſpring filled, but much more ſtubb'd filled than new planted. We are generally ſupplied in this county from part of Lincolnſhire, Nottinghamſhire, and Derbyſhire. Sir George Savile, and ſome others, plant a good deal, but there is not near ſo much planted as cut down. If I can give you any further information ſhall do it with pleaſure, and am,

Sir,

Your moſt obedient humble ſervant,

Richard Elliſon.

And laſtly, I preſent the opinion of the Right Hon. Sir John Philipps, whoſe public ſpirit is well known in the county of Pembroke where he reſides, and has rendered himſelf ſo eminent in the knowledge of the laws of his country; whoſe love to the naval power of Britain, the ſhipwright's branch, and the encouragement of nurſeries upon his own eſtate, is beyond moſt gentlemen I am acquainted with; to whom I communicated my intention, and had the pleaſure of receiving his honour's approbation thereof.

SIR, London, 3d March, 1763.

I acknowledge your favour of the 22d paſt, and greatly applaud your deſign; as I foreſee if gentlemen do

do not encourage planting of oak timber, we muſt ceaſe to be a maritime nation. I have planted a great deal myſelf, and recommended it to every body; but we want a law for the enforcing and encouraging of it. I have not time, nor indeed health at preſent, to look into the laws relating to it; but if you uſe my name to Mr. William Adams at Pembroke, I dare ſay he will help you to the ſight of the ſtatutes concerning it; and am,

Sir,

Your very humble ſervant,

John Philipps.

A Sum-

A Summary View of the Judgment of the different Dealers in the different Counties, according to Numb e Years, reſpecting the proportionate Decreaſe of Oak Timber.

Perſons.	*Counties, &c.*	*Years.*	*Decreaſe.*
Wood & Palmer	Whitehaven, in the North	40	Seven eighths.
Okill	Lancaſhire, Cheſhire, N. Wales	50	Three fourths.
Golightly	Lanc. Cheſh. Shrop. Stafford. Wales	50	Seven tenths.
Yoxal	Cheſhire	30	One half.
Walford	Shropſhire	30	Four fifths.
Bridge	Carnarvon. Denbigh. Merioneth. Flint.	15	Two thirds.
Moſtin, Eſq;	In Denbigh. Advertiſed for Sale	1	One third.
James	Caermarthen. Pembroke. Cardigan.	30	Nine tenths.
Morgan	Caermarthenſhire, &c.	13	Seven eighths.
Lomax	Brecknockſhire	30	Two thirds.
Moore	Worceſter. Glouceſter. Hereford. Monmouth.	40	Four fifths.
Smith	Worceſterſhire, Warwickſhire	40	Four fifths.
Rooke	Devon. Dorſet. Somerſet. Cornwall	40	Four fifths.
	Hants. Surry, Kent, Suſſex	40	Nine tenths.
Steele	The South Parts	40 to 50	Seven eighths.
Chitty	Timber Counties in general	40	Nine tenths.
Dearſly	Eſſex, &c.	14	Three fourths.
Shields	Yorkſhire	40	Four fifths.
White	Hampſhire	40	Three fourths.
Morris	Surry, &c.	20	Three fourths.
Martin	Newport, Greenock, Ayre, Dumfries	21	No ſupply.
Miller	River Clyde, Port Glaſgow	17	No ſupply.
Palmer	Shropſhire, Montgomeryſhire	Several	Great conſumption.
H. Williams	Pembrokeſhire	From a Youth.	Great deſtruction.
W. Williams	Glam. Mon. Glouceſ. Heref. Shropſh.	15	Almoſt entire deſtruction.
Matthews	Briſtol	10	Not one quarter of the choice.
Andrews	Plymouth	30	Decreaſe, very conſiderable.
Bird	London, all round		Very little remaining.
Goldſworth	General	in 19	Price advanced from 3l. to 4l. 5s.
Mills	Surry, Kent, Suſſex	40	Almoſt all taken down.
Sir Jn. Philipps	Pembrokeſhire, and elſewhere		In danger to ceaſe to be a maritime nation.

PART IV.

Demonſtrating, that the conſequence of the neglect of planting, if not ſpeedily remedied, is likely to be the ruin of this kingdom.

THE Britiſh navy never ſhone ſo bright, as at this day; the quantity of capital ſhips and frigates, exceeds the number of former ages, by much; which peace, in a great meaſure, renders uſeleſs: conſequently, numbers of them will be laid up, and preſerved from the inclemency of the weather, as much as poſſible; which, notwithſtanding, in the end, time muſt decay.

But our increaſing trade, to the different parts of the globe, will call for a greater number of ſhips, in the merchants ſervice, than heretofore. Many of thoſe now employed, are unfit for ſervice. The great price of materials, during the war, was an effectual bar to the building of new ones, on account of the high premiums of inſurance; ſo that the merchants, in general, were willing to patch up thoſe they were in poſſeſſion of, waiting till the peace commenced. The demand for oak timber, in all probability, for the merchants ſervice, in building new ſhips, for ſeveral years to come, will be nearly equal to the conſumption of that commodity in his majeſty's ſervice, during the war, if we may judge from the demand there was for new ſhips, at the commencement of the laſt peace, 1749.

In the port of Liverpool, for ſeveral years together, there was ſcarcely a ſpring tide, when there was not one, two or more ſhips launched. And the merchant ſhips are now much more worn out; and trade much more increaſed, than at that time. And it appears very plain to me, that the preſent growth is far inferior to the demand; ſo that we ſhall ſtill continue to work

out the decreaſing ſtock; which ſhortly muſt have an end, in every part of the kingdom; as it is already, in too many places; as has been clearly proved.

And in forty years more, when the preſent navy is worn out; from whence ſhall we fetch our timber, to build new ones? For it is my opinion, that were the preſent navy annihilated at this time, it is a great query, whether all the full grown timber, near the navigable rivers, collected thro' the kingdom, would be ſufficient to replace them.

Has not, therefore, every honeſt man, who wiſhes well to his king and country, reaſon to be alarmed? and to uſe all the arguments in his power to enforce a ſenſe of the danger we are expoſed to, by the great neglect of propagating our natural ſtrength, in hopes that our legiſlative power will ſeriouſly take into conſideration, the moſt ſalutary means of eſtabliſhing ſuch nurſeries, as may put it out of the power of fear, of ever wanting a ſufficient ſupply for the navy, or the merchants ſervice: for they go hand in hand? If it ever happen, that the mercantile trade meet with ſuch clogs, or difficulties, in providing materials, nearly upon the ſame footing as the neighbouring powers, it is almoſt the ſame as if there was an utter prohibition. And any increaſing expence, laid on ſhipping, muſt of conſequence fall upon the goods exported and imported; and if we cannot ſupply thoſe foreign markets, where others have the ſame right as ourſelves to trade to, and vend the ſame commodities, on as cheap, or cheaper terms, thoſe reſources of trade will naturally drop. And to what purpoſe are all our conqueſts, if trade extends no farther than the mother country?

It is true, the act of navigation confines many articles to Britiſh bottoms; but if there be no Britiſh oak, to build Britiſh bottoms from, that act becomes a hurt

a hurt to trade, inſtead of a benefit. Or if we be obliged to transfer the ſeat of building from England to our plantations, we become ſubſervient to our colonies, not our colonies to us; and it will be a greater favour to be born in America, than in Britain; and of conſequence will be a means of ſending our moſt valuable artificers to the Continent; ſo that we may conquer, and plant new colonies, to our utter deſtruction.

Whilſt the Plantations in America are kept in their due bounds, to receive their nouriſhment in trade, and furniſhed with manufactures, from the bowels of Britain; and in return, we receive of their produce, not only for our preſent occaſion, but to encourage our trade with our neighbouring nations, ſo as to enrich the mother-country; theſe are the only valuable ends that can attend the extent of dominion. And whilſt theſe bounds are not exceeded, the ſhips built in America, either by the merchants of Britain, or the reſidents of that part of the globe, ſo as to be employed in the exchanging of produce, for the reciprocal intereſt of both; this is the utmoſt benefit a maritime power can derive from her colonies.

Many ſenſible men, who have been well acquainted with the flouriſhing ſtate of New England, &c. have obſerved, the warlike deportment of the inhabitants, their ſurpriſing robuſtneſs and agility of body, and their indefatigable eagerneſs in the purſuit of trade, is ſuch, that they cannot bear to be reſtrained in their views of commerce. And for want of commodities ſufficient of their own produce, are not able to employ their ſhips, to make the proper remittances for the manufactures they receive from their mother-country; and the delay, danger, and difficulty of want of caſh for remittances, has cauſed many to ſtretch their wits to find out new places of commerce.

Hence aroſe their attempts to carry on illicit trade on the Spaniſh main, St. Auguſtine, Monti-Chriſti, &c. And though this method could not be vindicated, on the principles of honour, and the faith of treaties; yet the logwood, caſh, and ſugar, remitted to Great-Britain, were a certain payment for our manufactures. Such ſteps as theſe plainly intimate, that their trade with the mother-country wants extending.

And by the great attention paid, by the ſovereigns of Europe, to the propagating of their own manufactures, at the ſame time that they take leſs of ours, eſpecially in the North, the price of timber, hemp, and iron, in a few years, being advanced in their prime coſt near double; there is no doubt but that, whenever our legiſlators ſhall ſee it the intereſt of Great Britain to encourage the ſole importation of our hemp and flax, iron, timber, tar, and turpentine, from the different parts of our plantations in America, they will paſs an act to that purpoſe; and then, what a glorious field of commerce, to the reciprocal intereſt of the plantations and the mother-country, will be opened? And inſtead of vaſt quantities of caſh being ſent out of the kingdom yearly, for the balance of trade for theſe commodities, it will all be employed in the increaſe of the manufactures of Great Britain for the trade of America.

Many hundreds of ſhips will be employed; and thouſands of ſailors more than uſual will be raiſed, for the benefit of the nation in time of war. This will always make it the intereſt of our American colonies to be dependent on Great Britain. Nor will they need to attempt to interfere, in any reſpect, to the detriment of the trade of Great Britain or Ireland, to our Weſt-Indian or African colonies.

But as Mr. Poſtlethwaite juſtly obſerves, in his Univerſal Dictionary of trade and commerce, vol. ii. p. 646.

" The

" The eſtabliſhing of manufactories ſeems to be an eſ-
" ſential part of the ſyſtem of Ruſſia, that they have at
" preſent adopted; which we muſt more and more
" ſenſibly feel and experience as they advance therein:
" unleſs that we ſhall take leſs of their productions
" and commodities, in proportion as they import leſs
" of ours. Which makes it highly neceſſary from
" Ruſſia, or any other part of the Baltic. As we have,
" or may have them, from different parts of our planta-
" tions, much cheaper as to prime coſt: and open ſuch
" a field of trade for our New England inhabitants
" with the mother-country; and increaſe their number
" of ſhips and ſailors to a great degree."

And in pages 315, 316, 317, 318. of the ſame volume, he treats very largely on this ſubject.

" As the manufacturing of pig-iron into bar-iron,
" raiſing hemp, flax, furniſhing all our fir-timber,
" boards and deals, maſts, yards, pitch, and tar, ex-
" cluſive of any to be received from the Baltic. And
" in return for theſe commodities, to be ſupplied from
" Great Britain only, with their cloths, woollen and
" linen, cotton, ſilk, haberdaſhery, manufactures of
" hardware, wrought iron, braſs, chains, edge-tools,
" jack-work, nails, bolts, ſcrews, *&c.* All their heavy
" ware, ſuch as caſt iron, braſs, guns, mortars, ſhot,
" ſhells, pots, cauldrons, bells, battery, *&c.* All their
" clock-work, watch-work, even ſo much as their
" toys, trinkets, houſhould-furniture, glaſs-ware, up-
" holſter-ware, tin-ware; in a word almoſt every thing
" we make, and every thing we import; it would be
" endleſs to repeat it." And he obſerves further,
" How prepoſterous muſt thoſe notions be, and how
" oddly do they think, if they can be ſaid to think
" at all, who ſuggeſt miſchief from the increaſe of
" our colonies."

Far

Far be it from me, to accuſe our plantations of diſloyalty, or any miſchief from the increaſe of our colonies (to be made uſe of according to the above excellent ſcheme;) or to ſuggeſt any thing that might be a means of creating jealouſy betwixt us and any of the neighbouring potentates. What I chiefly aim at is, That Great Britain may always be ſufficiently ſtrong to ſtand, if occaſion be, on her own baſis, independent of all the world; and, in this ſenſe, of her colonies too; and to take care to propagate Britiſh ſailors, in Britiſh ſhips, built of Britiſh oak; which will be an effectual means of commanding reſpect from the European powers, and of rendering her colonies ſubſervient to her, from whence they have derived their being, protection, and nouriſhment.

Had the ancient Britons but been acquainted with trade, before they were invaded by the Romans, Saxons, Danes, and Normans, ſo as to have exerted their natural ſtrength, at the time when the whole iſland was overgrown with oak; ſo far as appears by the noble ſtand they made againſt the different invaders, when unacquainted with the art of war, otherwiſe than as they were taught by nature, making uſe of the woods for no other purpoſe than as the Indians in America have lately done againſt the European powers that have attacked them; had they known the great uſe of ſhips of war, and been capable of conſtructing them for that purpoſe, they might have bid defiance to all their invaders, as it is very plain we have done ſince we became a maritime power; and if we now ſlight, and neglect the means of our preſervation, our deſtruction muſt inevitably follow.

How oft have France and Spain attempted an invaſion of theſe iſles! Witneſs the grand Spaniſh armada, and the ſignal victory gained over them by our fleet. How recent in our memory is the grand puſh the

French

French made in the year 1759! and the glorious victory obtained, under the able conduct of Admiral Hawke! What repeated conqueſts have we made from the enemy during the courſe of the late war, by the ſuperiority of our maritime force? Thoſe ever-memorable events, the attack and conqueſt of Louiſburg, Quebec, Goree, Senegal, Guadaloupe, Belleiſle, Martinico, the French ſettlements in the Eaſt Indies; and the finiſhing ſtroke, the Havannah, together with that noble fleet of the Spaniards, which ſo glorioufly put an end to this deſtructive war, make the annals of the late war ſhine with unrivalled luſtre, and are ſo many inſtances to prove the neceſſity of continuing our ſuperiority by ſea; which there is no probability of doing, unleſs the government ſeriouſly take into their conſideration the decreaſing ſtock of oak-timber.

But it may be alledged, That our enemies labour under the ſame diſadvantages, in regard to their naval ſupply, as we do; and therefore we have nothing to fear from the French and Spaniards: That our reſources are likely to continue as long as theirs in Europe.

As I am not thoroughly acquainted from whence they receive their ſtock of timber for the ſupply of their navy, I cannot pretend to form a judgment of the duration of it. However, according to the report of travellers, they have formerly been guilty of the ſame miſtakes as we are now; and France is now very ſenſible of it, as appears by the account of Monſieur Deſlandes *.

" The only remark as can be made, regards the " want we begin to feel of all ſorts of wood fit to be " employed in building. Neither ought this obſer- " vation to be confined only to that ſort of wood, but

* See Poſtlethwaite's Dictionary, vol. ii. p. 704, 705.

" to

" to all others that ſerve either for carpenters, makers
" of carriages, or even is deſtroyed by fire; theſe laſt
" are particularly grown almoſt every where ſcarce,
" and prodigious dear: forges, glaſs-houſes, the lux-
" ury of great cities, the too great curioſities about
" dreſſing good cheer, have conſumed prodigious
" quantities. And we have taken no care to replace
" them; we feel every where the want of wood, and
" yet we let it every where decay."

And, ſpeaking of foreſts, he ſays,

" The true ſignification of which term is certainly
" to be learned from hence, that anciently all the
" banks and ſhores, indeed all the places adjacent to
" the ſea, and to rivers, were filled with trees; and,
" as they were firſt inhabited, grubbed up, and cul-
" tivated, they beſtowed the name of foreſt equally
" on all places where wood and water were joined.
" The neighbourhood retained its denomination after
" it became peopled. But by degrees, as inhabitants
" began to increaſe, and barbariſm gave way to ſofter
" manners, to more poliſhed converſation, and to
" pleaſures, towns were formed, arts were intro-
" duced, and the conveniencies of life were refined
" and improved every day."

" It was neceſſary to ſacrifice to theſe uſes a great
" quantity of wood, in order to give people, if we
" may ſo ſpeak, room to breathe. Hence it came to
" paſs, that, preſerving a few trees for ornament,
" they cut down all the reſt; without reflecting, that
" a very tranſitory ſatisfaction would induce frequent
" and grievous fits of repentance. In effect, the
" common complaint throughout almoſt every part
" of the kingdom is, that there is no wood left.

" The late Marquis Seignelais, whoſe views ex-
" tended to futurity, had formed a deſign of cauſing
" all the ſea-ſhore to be planted with timber fit for

" ſhip-

" ſhip-building. I do not know what obſtacle hin-
" dered that deſign, which was undoubtedly worthy
" the moſt clear-ſighted miniſtry."

Is it not very ſtrange, that many of our great men ſhould take pattern of France in the very thing ſo condemned by themſelves? in cutting down all the trees round their ſeats, except a few for ornament, as has been obſerved before. But to return:

At preſent, the French pay a very particular regard to the propagating of oak, in thoſe provinces from whence their ſupplies come. And I am informed, that no gentleman is allowed to cut down any oak-timber, without firſt applying to an inſpector-general appointed for that purpoſe; and he muſt lay a foundation, by planting of a much larger quantity than the parcel he intends to cut.

Had this ſalutary law been obſerved in England for fifty years paſt, we ſhould have been under no fear of the want of this commodity.

And it appears plain, the French oak is equal in quality to Britiſh, or near it, from thoſe ſhips we have taken and broke up. And, by the vaſt extent of their rivers and canals through that great kingdom, which extend from one end to another, and the ſupply they receive from the Italian ſtates, it appears their magazines of timber are likely to continue much longer than ours, unleſs we be more upon our guard.

And, in regard to Spain, her increaſing navy for the laſt twelve years, (built by the aſſiſtance of ſome of our beſt ſhipwrights) ſhews, that they have ſufficient magazines of timber. And, according to the deſcription of the iſland of Cuba, they have an infinite reſource of materials to build the largeſt ſhips. And I have been well informed, by a perſon come lately from the Havannah, who gave me a deſcription of the men of war on the ſtocks there when it fell

into our hands, that both workmanſhip and ſtuff were as complete, firm, and good, as if done in the beſt yards in Britain; compoſed of a hard wood, like iron-wood, for timbers, and the plank of Cedar and Mahogany. They cannot be ſaid to be as ſtrong as Britiſh ſhips; yet they are ſufficient, and as durable from rotting, if not more ſo, than the timber we make uſe of.

Suppoſe we ſhould be driven to the neceſſity of making uſe of our American timber, or building our ſhips for the navy in thoſe parts, (which would be attended with the worſt of conſequences to the mother-country,) the large-ſized oak is ſo porous, in thoſe climates, that ſome parts of the ſhip would be rotten, or near it, before ſhe was ready to proceed to ſea; and of conſequence, the expence in other materials would anſwer to little purpoſe in a ſhip of ſo ſhort a duration.

But ſuppoſe we have nothing to fear from France and Spain; it is my opinion we have not: for they appear to be paſt the meridian of their glory. And while Great Britain continues to adminiſter juſtice and equity, with her uſual impartiality, ſhe may bid defiance to all the world; yet the means of continuing our favours, are not to be deſpiſed.

We have been ſlaves to many nations round us; and the world always will be at variance: contending powers have been, and ſtill will be, riſing up: let us therefore continue to nouriſh our natural defence. Many ſtates in Europe are jealous of our power; and with wonder, and regret, have beheld our repeated ſucceſſes, during the courſe of the late war. With what ingratitude, and partiality, have ſome of them behaved? Even thoſe very powers, that we have ſaved from the jaws of deſtruction, more than once.

How

How many families groan under the ruin brought upon them, in the ports of London, Liverpool, Briſtol, and the Weſt? When encouraged to bring in French-Dutch ſhips; what falſe ſwearing, and falſe papers, were diſcovered, in covering French property? And with what impartial juſtice the lords of trade in this kingdom proceeded againſt them, is well known. And for want of proper evidence, to prove the goods French property, how many were acquitted, with coſts of ſuit againſt the captors? When, according to report, they no ſooner arrived at home, than ſome of them exultingly declared, *where* the papers were ſecreted, that would have made them lawful prizes. How many Britiſh bankruptcies enſued on that account, is well known by the ſufferers.

The flagrant attempts made in the Eaſt-Indies, by force of arms, in the midſt of peace, in the courſe of the late war with France, ſhews the partiality of the inhabitants to them, and the jealouſy they entertain of our power; but they met with the reward due to their perfidy: and had it not been from his Majeſty's great goodneſs, and the conſummate wiſdom of the ſtates of Holland, the two nations might have been involved in war, whoſe intereſt is always to be at peace.

We have ſeen the houſe of Auſtria, for whom we have ſpent ſo many millions, joining in alliance with our very enemy; becauſe Great-Britain would not enter into her meaſures. The Swedes, and numbers of the princes of the empire, ſpreading deſolation againſt our ally; with whom they had no perſonal quarrel. The Ruſſians, through French and Auſtrian policy, have been the cauſe of running us into millions of debt.

But by the unparalleled valour, and fortitude, of the Pruſſian heroes, under the hand of Providence,

all their ſchemes have proved abortive; while France and Spain have been ſoundly drubbed, and forced to ſue for peace; and great George and Frederick, crowned with laurels, ſheath the dreadful ſword.

Dutch, Danes, Swedes, Auſtrians, and the reſt of the empire, have all their ſeparate intereſts: nor is there any fear of a coalition, at preſent.

Ruſſia is our ally: but from the vaſt ſtrides ſhe has made, in the laſt half century, it behoves us to be upon our guard. Her armies, compoſed of ſavage, and civilized ſoldiers, ſtrike terror wherever they come; her ſhips of the line increaſe yearly.

We are told, "There are in Peterſbourgh, above "three quarters of a million of people; and that their "number increaſes daily, by the prodigious increaſe "of the court, ſince the time of Czar Peter. As alſo, "in a particular manner, by the increaſe of the naval "power of Ruſſia, of which this port is the center; "in ſo prodigious a manner, within a few years, as to "have, at once, from ſixty to eighty ſail of capital ſhips "of war; beſides leſſer men of war, prohms, frigates, "ſloops, and gallies, amounting to three hundred "more. The ſupply of proviſions, to ſo great a body "of people, has occaſioned numerous trades to be "ſet up; which greatly tend to the increaſe, both of "ſhipping, and of people; and particularly, of that "uſeful ſet of people, called ſeamen, who are a ſet of "men, more eminently wanted, now, in this part of "the Ruſſian empire. The bringing corn to ſerve this "city, employs now a prodigious number of veſſels "and boats, great and ſmall; upon the great lakes of "Ladoga, and Onega; and from all the towns, on every "ſide of thoſe lakes."*

* Mr. Poſtlethwaite's Dictionary, Vol. II. p. 645.

She

She only wants ſailors to render her formidable; which trade will bring, as it has to all other maritime powers, from their infancy.

Therefore, it is eaſy to foretel (without pretending to a ſpirit of propheſy) that unleſs Great-Britain takes more care, than ſhe has lately done, to propagate that, without which, as a maritine power, it is impoſſible to ſubſiſt; namely, *Heart of Oak*; ſhe will aſſuredly be undone.——But by what power, time alone muſt ſet forth.

What Engliſhman can read the hiſtory of this kingdom, from its firſt invaſion by the Romans; the different changes, and revolutions, it underwent from the different invaders, afterwards; the blood of ſo many myriads ſhed, from time to time, in bravely defending their country, as Britons; yet brought into ſlavery; property changed, according as each tyrant had the ſway; but his heart muſt ſhudder, at the diſtant apprehenſion of poſterity being involved again, in the ſame dreadful cataſtrophe?

Nay, even thoſe that are intirely ignorant of hiſtory, may view, through different parts of the kingdom, the ancient Roman ways; together with the different coins, frequently dug up; with the different inſcriptions of the tyrants they repreſented; which proves beyond a doubt, the melancholy truth.

View but the ancient fortreſſes, now in ruins, thro' all parts of the kingdom; ſituated in ſuch a manner, as to appear to human reaſon, almoſt impregnable; and being left a heap of rubbiſh, ſhew, that nothing can perpetuate to poſterity, the bleſſings of freedom, that we enjoy; but a more attentive care to planting oak timber.——Of theſe we muſt make our caſtles.

Shall we truſt to French and Spaniſh treaties? whoſe maxims only have been, to maintain them, no longer than they were in a capacity to break them. Shall we

we depend upon our allies? Experience proves, every nation aſpires after greatneſs; and every deſpotic prince does not want an excuſe, to explain away the moſt ſolemn engagements of his predeceſſors. If France and Spain deſpair of coping with Great-Britain, with all their joint fleets and armies; on the moſt frivolous pretext, they will call upon the God of armies, to bleſs their juſt cauſe, againſt poor Portugal, for no other reaſon, than, becauſe ſhe maintains the ſame faithful neutrality towards England, as ſhe does to them; and enter that diſtreſſed kingdom with fire and ſword.

If the late Empreſs of Ruſſia, and Empreſs of Germany, together with the King of Poland, Elector of Saxony, viewing the growing polity of Pruſſia, and the warlike deportment of her prince; combined together, to make partition of his dominions, before a war commenced, and through their machinations, forced him firſt to enter the liſt, by the proximity of their armies to his frontiers. Had not their baſe deſign been found out, by that magnanimous prince, they had agreed to enter his territories the following year, for no other reaſon, but leſt he ſhould grow too great. Witneſs, their whole deſigns made public, by the original documents taken out of the archieves of Dreſden.

Hanover, and other of our proteſtant allies, were invaded by France in the midſt of peace; becauſe king George is Elector of Hanover, and in friendſhip with Pruſſia. And almoſt a million of lives were thrown away, during the late war, through meer caprice; but juſtice has brought the ſword upon their own heads, and rendered all their efforts vain, in the moſt remarkable manner, hiſtory ever afforded.

If the moſt ſolemn treaties have not hitherto bound our enemies; and if the ties of gratitude and friend-

ſhip

ſhip have been trampled on by ſome of thoſe powers in alliance with us; with what firmneſs and reſolution, doth it become this kingdom to behave? And to let all the nations ſee, that we are equally ſteady, in maintaining the dignity, Providence has conferred upon us, as we are faithful in fulfilling our engagements, to thoſe in alliance with us, which we cannot do, without taking proper care to increaſe our naval ſtock.

And if our imbecility ever appears to the powers we may have to contend with, and by a grand effort of their naval ſtrength, they once more ſet footing on this happy iſle; how many children's children may have reaſon to curſe the fatal neglect of the preſent age, in not making the ſame proviſion for their ſecurity, as our fore-fathers made for us? the direful conſequence of invaſions, will be more ſeverely felt in this iſland, than any other part of Europe. The inland fortifications are ſo few, that unleſs ſtopt by meer dint of valour, a powerful army might overrun the country in one campaign.

Should this once be the caſe, and Britain's naval power prove unable to contend with the enemies fleet, (which God forbid!) how will the doleful lamentation of the once famed Tyre be again revived; and England, ſituate in the entrance of the ſeas, perfect in beauty, a mart of the nations; her riches and her fairs, her merchandize and mariners, her pilots and her caulkers, the occupiers of her merchandize, and her men of war, fallen in the midſt of the ſeas! her iſlands, with the vaſt continent ſhe is poſſeſſed of in Aſia, America, or Africa, at once brought into ſubjection to the enemy? theſe gloomy thoughts are too melancholy to dwell on, and hope this will never be the caſe.

How

How much more pleaſant would it be, to ſee his Majeſty and the parliament, with every nobleman and gentleman of the country, ſenſible of the danger we are expoſed unto, (when once we are rendered incapable, *by the want of materials*, to equip the royal navy; which, in the ſpace of ſixty years, if we continue in the ſame plan of cutting, without eſtabliſhing a much greater fund than at preſent we are in poſſeſſion of, will aſſuredly be the caſe,) immediately take into conſideration the means of eſtabliſhing a royal navy for the year 1850; which is certainly in their power to do.

There never was a time, ſince the firſt invaſion of this kingdom by the Romans, which is now upwards of 1800 years ago, when Great Britain was ſo effectually drained of her oak-timber, as at this day. And in the courſe of ſo many hundred years, no one period ever afforded ſuch a naval force as we are in poſſeſſion of; nor required ſo great a conſumption of timber as is neceſſary to maintain it, and to carry on the merchants ſervice.——The conſequence of great conſumption and ſmall magazines may preſent ſuch a tragedy, in the next generation, that happy will he be who has no part in the acting, or is abſent from the theatre!——Happy would it be, were it poſſible for me to make uſe of arguments to convince my countrymen, that the reality of our danger is ſuch, as that, without ſpeedy remedy, our deſtruction muſt infallibly enſue!

But it will, no doubt, be objected, by the critics of the age, That the things aſſerted are not ſo; that it cannot be ſuppoſed, that the guardians of Britain, his Majeſty's miniſtry and parliament, with all other officers civil and military, ſhould be ignorant of our danger, if it was ſo great as has been hinted: for that

the

the Right Honourable and Honourable Boards, under whoſe immediate cognizance the affairs of the royal navy are tranſacted, would long ſince have apprized his Majeſty and the Parliament thereof.

In anſwer to which objection, I obſerve, That their attention has been chiefly engaged in exerting themſelves in the great truſt repoſed in them, the management of the neceſſary affairs of the navy. And tho' their high offices oblige them to an inſpection into the want of all materials, and to provide them in the moſt frugal manner, yet the ſubject under conſideration is remote from their ſtations, and falls not directly under their cognizance. It is well known, that all materials for the navy are ſupplied by contract on the beſt terms. And whatever quantity of ſhip-timber was wanted to be ſerved into any of his Majeſty's yards, by public advertiſement, ſuch contract would be ſupplied, by the different timber-merchants, from different parts of the kingdom, till the whole country was effectually drained. And no ſcarcity appears, either in the yards, or at the Honourable Navy-board, otherwiſe than by the advanced prices obliged to be given to procure the ſame. So that they are ſufficiently exculpated from all blame on that account.

Who then are the proper judges of the quantity or ſcarcity through the kingdom?

I anſwer, The principal ſhipwrights of the metropolis, and of the different flouriſhing ſea-ports; the dealers in timber, by whom they are ſupplied from the different countries; and the purveyors of his Majeſty's yards. Theſe are the perſons from whom the nation muſt be properly informed, of the preſent decreaſing ſtock of navy-timber, and the great neglect of planting.

It is from a real and perſonal knowledge of our decreaſing ſtock of full grown timber and nurſeries, that I have been induced to appear in public, and to collect the teſtimony of ſo many timber-merchants and ſhip-wrights, from the different parts of the timber-counties, that are, and have been, the chief ſupply of the navy and merchants ſervice; who not only have proved the reality thereof, but the proportionate decreaſe, and the little care that is taken for poſterity in planting, as clearly, to a demonſtration, as the nature of the thing can poſſibly admit of; whoſe teſtimony ought not to be diſregarded.——And were our moſt gracious Sovereign and Parliament ſenſible of the premiſes, no doubt they would take the ſame into their moſt ſerious conſideration.

What care and pains has been taken to increaſe our commerce? and how many millions is the nation involved in debt, for the ſake of maintaining our juſt rights, and our ſovereignty at ſea? What numerous acts every ſeſſion of parliament produces, for the inland communication and benefit of travellers, the quantity of waſte lands that are made arable, and the ſpirit of navigation going forward in the inland canals, affords a proſpect of eſtabliſhing a communication, by the four great rivers Thames, Severn, Trent, and Merſey, from ſea to ſea; and when the whole is perfected, England may reſemble a paradiſe for convenience and enjoyment.——It is matter of aſtoniſhment to conceive, how it is poſſible that ſo material a part of our ſecurity, ſo much complained of by individuals for almoſt half a century, ſhould have eſcaped the public notice to the degree it has, when the ſafety and ſucceſs of the whole ſo greatly depends upon it.

Nor

Nor is it to be accounted for any otherwiſe, than as Cardinal Richelieu obſerves, according as he is quoted by Monſieur Deſlandes, and as Mr. Poſtlethwaite writes the paſſage *, on another occaſion.

" But to avoid being deceived, we muſt ſleep like " the lion without ſhutting our eyes; which ought " to be continually open, in order to foreſee the " ſmalleſt inconvenience that may happen. For " hence it is, that often we ſee in ſtates, that ſuch " evils as were imperceptible in their origin, and " which were leaſt thought of, are the moſt dange- " rous, and thoſe that prove of the greateſt conſe- " quence in the end."

The numerous projects that have of late appeared in our public papers for occupying of waſte lands, ſettling our ſoldiers and ſailors when diſbanded, eſtabliſhing fiſheries, building ſhips for foreign markets, and diſpoſing of ours and the enemies ſhips into other ſervice, in order to make room for employing our ſhipwrights to build new ones, *&c.* But at the ſame time, the neceſſity of a reſt, which the remainder of our woods and foreſts require, for the uſe of the next generation, is not conſidered, and poſterity has no place in the breaſt of our modern planners.——So ignorant are they of our natural ſecurity, and of our exhauſted ſtock of ſhip-timber, which we aſſuredly labour under.

If the teſtimony and evidence of the meaneſt ſubject in England, who is reputed an honeſt man, is taken, and held as ſacred, (if I may uſe the language of ſacred writ) *we alſo are compaſſed about with ſo great a cloud of witneſſes*, who all bear teſtimony to the truth of what has been aſſerted, and are men of the

* Dictionary of Trade and Commerce, vol. ii. p. 3.

moſt undoubted veracity, and extenſive knowledge in their profeſſion, reſiding in different parts of the kingdom, and capable of knowing much better than any other ſet of people:——So that there is no room left for any judicious perſon to doubt, that our magazines of oak-timber for the navy and merchants ſervice are ſo much exhauſted, and that ſo little attention is given to the eſtabliſhing of nurſeries, as, if not immediately remedied, muſt ſhortly be the ruin of this kingdom.

PART

PART V.

Giving my humble opinion what meaſures would be moſt conducive to retrieve this defect, and that it is not too late.

I CAN only be very brief in treating of the ſteps neceſſary to be taken; the nature of the thing (like the needle touched with the magnet) points to the remedy.

The ſmall quantity of full grown oak-timber now ſtanding, and the great and perpetual demand there is for it, together with the ſmall number of nurſeries that can be expected to arrive at maturity in a moderate time, ſhews the neceſſity of an immediate and effectual ſtop being put to the applying of any ſuch timber to uſes to which it is not indiſpenſibly neceſſary, or which might be ſupplied by other means.

The ſmall quantity of young woods or coppices which are now coming forward towards a future ſupply, points out the undeniable neceſſity of a very ſtrict attention being paid to preſerve all nurſeries and plantations from deſtruction, either from men or beaſts; and that either the wilful deſtroying of ſaplings, or ſuffering them to be ruined through neglect, ſhould be actually purſued with ſeverities; for if half the kingdom was planted with oak, or ſown with acorns, this preſent year, it would require ſo much time to grow, that unleſs more care is taken to preſerve the preſent growth, (ſuppoſing the ſame conſumption which has been, and may be expected) there muſt be a very great ſcarcity, if not a perfect vacancy, before any could be fit for uſe.

And the great diminution of the lands for the preſent growth of timber from what formerly was, together with the greatneſs of the demand, ſurpaſſing what has

has been in any former age, renders it abſolutely neceſſary, not only to preſerve, with the utmoſt care, what is at preſent applied to that purpoſe, but that planting be made more extenſive; otherwiſe our reſources muſt undeniably fail, and the next age will be left deſtitute of oak-timber.

As we value ourſelves on being a free people, it cannot be ſuppoſed that a Britiſh parliament will alienate a part of their eſtates for the benefit of the public, to be planted with oak, and to be applied to no other uſe; yet, were they to ſet out with the laudable example of their anceſtors, in appropriating the moſt convenient part of the lands they are poſſeſſed of to be planted or ſowed with acorns, they might recommend the ſame to the neighbouring gentlemen of their acquaintance, in the ſame manner as it was one or two hundred years ago.

But as many perſons have appeared in print, pointing out different methods for the occupying of waſte lands, theſe are the places that properly come under the cognizance of the auguſt aſſemblies, as they cannot poſſibly be occupied without the conſent of a Britiſh parliament, and are the moſt proper places to be made uſe of for the growth of timber. And there are few counties near the ſea-coaſts or navigable rivers but there is more than ſufficient for that purpoſe. This will find employment for all the ſpare hands that are willing to maintain their little families by their induſtry, in cultivating ſome parts of ſuch waſtes as may be allotted for them; whilſt others are marked out, and encloſed with a bank and deep ditch, for nurſeries of oak-timber.

But eſpecially his Majeſty's foreſts, ſo numerous in this kingdom; which, in former ages, were incloſed, and full of timber, but are now only foreſts in name, or rather deſerts: The foreſts of Dean, and the new foreſt

foreſt of Hampſhire, which have been ſo greatly exhauſted during the two late wars, were they properly fenced in, and care taken to keep out cattle of all kinds, the timber would plant itſelf, and grow up to perfection, provided no perſon was ſuffered to lop and cut down the young trees. The full grown timber which theſe foreſts would produce, wholly appropriated to the uſe of the navy, would be near ſufficient to ſupply both Plymouth and Portſmouth yards.

But according to report, great embezzlements frequently happen; and an eminent ſhipwright, lately travelling through the foreſt of Dean, obſerved ſeveral trees that would have made ſtern poſts, for ſixty or ſeventy gun ſhips, cut down, and ſawed into ſhort lengths for cooper's ſtuff.—As the decreaſe is now ſo apparent, no doubt but a ſtop will be put to ſuch infamous practices.

The incloſing of theſe places, points out the very method to be uſed in ſo plain a manner, that if whole volumes were writ on the ſubject, they could not make it clearer; only we may further obſerve, that as the diſorder has been ſo epidemical, the regard paid to a few foreſts, will be of little avail; the cure muſt be as univerſal as the contagion hath ſpread, and proviſion muſt be made for a ſupply, equal to the increaſe of our trade.

Therefore if thoſe laws which give liberty for all bodies politic, corporations, townſhips, &c. to incloſe the waſte lands near them, for the benefit of the poor, made in the year 1756, were inforced, and a law made to oblige them immediately, to ſow ſuch waſte lands with acorns, and incloſe the ſame, through all parts of the kingdom, within fifteen or twenty miles of the ſea, or navigable rivers, the ſame example would ſoon be followed by gentlemen of different rank,

rank, and in a few years, the whole nation would be full of nurſeries.

One would think, there needed no other motives to inſpire every lover of liberty, to uſe his utmoſt to maintain it, than the valuable bleſſings that ariſe from the enjoyment of it.—Can it be ſuppoſed, that an invader and conqueror, would be more juſt and merciful now than formerly? No!—every perſon of property boldly fighting for the good of his country, if overcome, muſt expect to ſhare the ſame fate, as the nobility and gentry did in the eleventh century.—If we would maintain that dignity we are now poſſeſſed of, let every landed gentleman through the kingdom, propagate that commodity that has continued him in the enjoyments he poſſeſſes.

Should the preſent ſcheme of occupying the waſte lands through the kingdom for agriculture ſtill go forward, it may be attended with very bad conſequences, without a proper reſtriction, allotting ſuch parts as the government in their wiſdom, ſhall think neceſſary and ſufficient to be planted with timber; and this to be under the inſpection of the proper officers or magiſtrates of each county, town, or pariſh, who ſhould be under the neceſſity of giving an account to the auguſt aſſemblies, how theſe nurſeries come on, and when arrived to maturity, to be expoſed to public ſale, and properly encloſed afterwards. In the uſe of theſe means, we ſhould be entirely free from the fear of ever being again involved in the ſame dilemma we are now arrived at.

This would be a certain, immenſe magazine,——would reflect the higheſt honour on the preſent age,—and in the hand of Providence, perpetuate to poſterity thoſe materials, for the ſame ſuperiority at ſea, which we at preſent poſſeſs.

This

This leads me to conſider, that it is not too late to ſet about this ſalutary work, of propagating oak timber.

In which I ſhall take notice, that (if it grows in ſuch ſoil as is moſt conducive to its nouriſhment) the time before it comes to maturity, or fit for the navy uſe, is not ſo long as moſt people imagine.

It is generally taken for granted, that an oak tree is at leaſt one hundred years before it comes to its perfection, continues in that poſition one hundred years more, and gradually decays another hundred. As to the truth of this aſſertion, it will be difficult to determine. Yet for the encouragement of planting, I can produce ſuch teſtimony of the quick growth of ſome, as is ſufficient to remove any prejudice which the landed intereſt may have imbibed; that neither they, nor their children of the preſent generation, will reap the advantage of the nurſeries they may be engaged in. I ſhall therefore give a few inſtances.

There is an avenue of trees in the walk leading to Sir Philip Chetwood's hall in Staffordſhire, whoſe ſteward informed me, in the year 1761, that the man who planted them, (after he arrived to man's eſtate) only died the foregoing year. And to my own knowledge, ſeveral of them are of ſufficient ſize to make futtocks for a ſhip of the line, and are not more (according to my informant) than between ſixty and ſeventy years growth.

Another inſtance worthy to be produced, and more worthy to be imitated, is that of the late Earl of Warrington, at his ſeat in Dunham Maſſie in Cheſhire, not leſs than one hundred thouſand oaks, elm and beech, left upon record, ſhews the patriot ſpirit he was poſſeſſed of. And when he was blamed by ſome of his colleagues in power and ability, for ſquandering away ſo much money, and deſtroying ſo much

land, which he would never live to enjoy the benefit of; his anſwer was, Gentlemen, you may think it ſtrange that I do theſe things; but I have the inward ſatisfaction in my own breaſt, the benefit of poſterity; and pointing to his groves---theſe, ſays he, are my racers, my fighting cocks, my gaming-tables and whores, and my ſurvivors will receive more than double the profit, than by any other method I could poſſibly take for their intereſt.

This was verified even in his life-time, for he had the ſatisfaction to ſee the timber of his own planting, worth more than double the land it grew upon.

I viewed theſe nurſeries, the 8th of April 1763, when I was informed by an ancient ſervant in the family, who was preſent at ſome of the above converſation, that he had only been dead four years, or thereabouts.

And there are vaſt quantitias that are worth more than two guineas per tree; and one in particular, within forty yards of the ſmith's ſhop, on the right hand entering the park, would make a wale-piece of the firſt ſort, for a ſeventy-four gun ſhip; tho' it is not ſixty years growth. And it is ſuppoſed, that in about thirty years more, the poſſeſſor may cut down yearly, two thouſand pounds worth of timber for fifty years together.

I am now concerned in cutting down a coppice of five hundred trees, near Woore, on the borders of Staffordſhire, which according to the beſt information, are between ſeventy and eighty years growth; and are what we call in the ſhipwright's term, *excellent plank timber*.

I ſhall give an inſtance more of an oak tree, the property of Mr. Hugh Ryding of Weſt Derby, about four miles from Liverpool, which tree is in the ſixtieth year of its growth, and is twenty-four inches diameter;

diameter; and according to all probability, would have been much larger, but from the damage the ſaid tree has ſuſtained, by one of its weightieſt and moſt extenſive branches being broke off in a hard gale of wind, many years ago, whereby the body of the tree is much ſplit; it is remarkable, that Mr. Ryding ſowed the acorn (that produced this oak) in the fifteenth year of his age, and is now living.

And in regard to the quick growth of ſpring woods that might be made uſe of for public utility in the preſent ſcarcity, there are abundance of coppices in the north parts of Lancaſhire, and other parts of the kingdom, appropriated wholly to the uſe of the furnaces and forges which are regularly cut down every fourteen years, and ſo advantageous are they to the poſſeſſors, that they yield a much greater profit than by any other method they can poſſibly receive from the land they grow upon; ſo that no regard is paid to ſtandils, or producing of timber, either for the navy or merchants ſervice.

If the noblemen and gentlemen, (who are the owners of the lands that are ſet apart for the uſe of the furnaces and forges) would but conſider their own intereſt inſtead of the country in general, having reaſon to complain of the deſtruction of our woods and nurſeries, which has all along been the caſe wherever furnaces and forges have hitherto been erected, as appears by the different teſtimonies already collected, they might be made the only advantageous ſcheme for a ſtock of full-grown timber, by a proper œconomy and regulation, and the furnaces equally ſupplied with fuel to carry on their work, by adhering to the following, or ſuch-like method.

It is to be ſuppoſed, that where ſpring-woods are raiſed for the uſe of the furnaces, that a ſufficient quantity are ſet apart ſo as to anſwer the conſumption

of the intended works; which muſt be regularly cut down every fifteen or twenty years, ſo much as is ſufficient for the carrying on the work each year, and conſtantly incloſed, ſo as to receive a ſucceſſive, progreſſive, and annual ſupply,

If, on the cutting down of each coppice, the moſt thriving ſaplings, at the diſtance of eight yards from each other, were left as ſtandils; and at the end of the next fifteen years, the time when the coppice is fit for cutting the ſecond time, particular regard ſtill to be paid to the growth of the ſtandils firſt ſet apart, or intended for the production of full-grown timber.

By this means there would be two full crops of underwood for the uſe of the furnaces; at the ſame time between thirty and forty years growth gained in the ſtandils intended for timber: ſo then it would be near fifty years before there would be any conſiderable decreaſe in the ſpring-wood; for by the ſpreading of the branches of the ſtandils, and the rain-drops from them, the ſpring-wood being ſhaded from the influence of the ſun, muſt naturally decreaſe and die; but in lieu thereof a ſtately wood of full-grown timber, in about thirty or forty years more, would accrue for the benefit of the owners, without coſt, and only with the loſs of two crops of chord-wood; the boughs of which timber, when cut down, if at eighty years growth, would ſupply the place, or be near equal to one crop or fifteen years growth of ſpring-wood: ſo that, in fact, there would be little more than one crop loſt; and the ſale of the timber would amount to more than the value of the whole land.

And by ſetting apart ſo much more land as would only amount to two crops of ſpring-wood, more than the furnace or forge would naturally conſume; by this means the furnace would be continually ſupplied with ſpring-wood, the navy and merchants ſervice

ſupplied

ſupplied with as much full-grown timber as the compaſs of the land would admit of (as eight yards diſtance is as near as timber-trees ought to ſtand one from another,) and the owner of the land all the advantage of profit he could poſſibly deſire: and the greater the number of furnaces erected upon a plan of this kind, would be an additional increaſe of timber in the kingdom.

But though this method appears to be very plain and practicable, and conducive of every advantage both to the landed intereſt and the nation in general; yet, without a law to enforce it, it would never be carried into execution.

The chief objection that would ariſe to a ſcheme of this kind, will be in thoſe places, where the furnaces are ſupplied from the different diſtricts of ſmall proprietors of wood-land in the north part of Lancaſhire, and elſewhere, who have a right by their leaſes to cut down the ſpring-wood, and raiſe it again for the uſe of the furnaces, but have no right to the timber growing on the land; but even here the wiſdom of the legiſlators may provide a proper remedy for the ſufferers.

Were the ſpring-woods to be made uſe of for the benefit of full-grown timber, as well as for the uſe of the furnaces and forges, under ſuch regulations as the legiſlators, in their wiſdom, ſhould think moſt proper, not leſs than twenty years growth would be immediately ſaved; and conſequently we ſhould have a ſtock of full-grown timber twenty years ſooner, from the ſpring-woods thro' the kingdom, than by ſowing the ſame quantity of land with acorns; which would be of material ſervice, as our preſent ſtock is ſo much exhauſted; and I don't doubt, but if the government, and the landed gentlemen, do but immediately take the ſame into conſideration, it will be clearly proved it is not too late.

Some REMARKS.

IT is to be hoped, that the time is now come, and will ſhortly be manifeſted, that the preſent parliament of Great Britain are attentive to the welfare and future intereſt of the navy. In the laſt ſeſſions of parliament, a committe of the houſe was appointed to enquire how the navy of Great Britain might be better ſupplied with timber, and had power to ſend for perſons, papers, and records. In conſequence of which many letters were receiv'd, not only at the Admiralty and Navy Boards, but divers perſons examined before that honourable committee on that ſubject. Amongſt the reſt, I was commanded to attend at the Speaker's chamber, Mr. Dowdſwell in the chair, to which ſummons I freely and readily obeyed, having previouſly been deſired to wait on the Secretary of the Admiralty, and likewiſe at the Navy Board, who acquainted me with the intention of the preſent enquiry, and of the difficulty of ſupplies of timber fit for the navy; ſeveral ſenſible letters were read, or ſhewn to me, done by maſterly hands, pointing out the beſt methods for planting and nouriſhing of young timber, and the different ſoils moſt conducive for that purpoſe, &c. likewiſe before the honourable committee I had the opportunity of hearing the examination of ſome evidences as touching his Majeſty's foreſts, and the ſupplies that might be expected from thence; upon the whole what I heard and was told of the different examinations was not ſatisfactory, ſome unprepared to give anſwers to ſo weighty an affair, and others contradictory to each other, and to the undeniable teſtimonies I am poſſeſſed of, from many experienced dealers of extenſive knowledge in the timber branch through the kingdom.

In

In the year 1763 I publiſhed the firſt edition of this treatiſe, my motive for doing it, I was ſenſible of the decreaſe of full grown timber, and of the want of ſupplies we ſhould ſhortly be liable to; but I reaſonably conjectured, for a private perſon to ſay ſo, though ever ſo well acquainted, he would not be believed, and therefore I concluded that the moſt authentick method would be to write to the moſt experienced timber merchants and dealers through the different counties, for their ſentiments of the proportionate decreaſe of the full grown timber where they reſided and had dealt, without intimating any deſign of making their letters publick, and for which freedom of publiſhing their letters I have been blamed by ſeveral, but had I not taken that very ſtep, I could never have come at ſo accurate a knowledge of the ſtate of the timber fit for the navy, nor of the proportionate decreaſe, and I can now only aſk their pardon for the liberty I took.

I ſuppoſe I was the laſt perſon examined by the honourable committee, and it gave me the utmoſt concern to hear a worthy gentleman expreſs himſelf in words to this effect, That it was the common manner of Engliſhmen to be more alarmed, and their fears in general to riſe higher, on every momentous occaſion, than the caſe required, but if it was an error, it was of the leaſt and beſt kind; but I humbly aſk his pardon in differing from his ſentiments in this reſpect, and that our fears are not equal to the dangers we are now expoſed unto.

Can it be ſuppoſed, that the Admiralty and Navy Boards are deceived in the advanced prices they are obliged to pay for timber delivered unto his Majeſty's yards, more than what was paid for the ſame kind and quality a few years ago, and notwithſtanding the additional price now given, can ſcarcely procure a ſufficient ſupply to carry on the works in the now times of

peace, in the different yards belonging to his Majeſty.

Is it reaſonable to ſuppoſe, that ſuch a number of eminent timber merchants and ſhipwrights, of different counties through the kingdom, are deceived in their deliberate ſentiments of the proportionate decreaſe of full grown timber, in the very places they have reſided and traded in for twenty, thirty, forty, and fifty years? I hope not, and Britain will ſhortly find they are not.

The author of theſe hints, who well knew and does know the great difficulty of procuring ſupplies for his Majeſty's yards, and who has greatly at heart the welfare of his Majeſty's navy, in October, 1768, was ſanguine enough to hope, that he might render the Navy Board good ſervice, and be of advantage to himſelf as a ſhipwright and timber merchant, and did propoſe to Sir Thomas Slade, that it had frequently happened in the courſe of his trade, to fall in with quantities of fine compaſs timber and knee timber, in the different counties of Lancaſhire, Cheſhire, Shropſhire, Staffordſhire, Flintſhire, and Denbighſhire, where he has and does trade; accordingly an order was made out to him, bearing date the 14th October, 1768, to deliver into his Majeſty's yard at Plymouth in the ſpace of five years, ſuch like ſpecies to the amount of 500 loads or any greater quantity upon further application, but on account of the advanced price and chiefly ſcarcity, he has not yet been able to collect one fifth part of the quantity he expected, though he has recommended ſome timber dealers to the honourable Board who have and will deliver into his Majeſty's ſtores ſome thouſand of loads of different kinds from theſe counties.

But in order to ſhew how difficult a matter it is for the auguſt aſſemblies to come at the real knowledge of the truth of our almoſt exhauſted finances of full grown

grown timber, the following inſtances are a remarkable proof.

By the report of the ſurveyor of his Majeſty's foreſts, and particulary of the foreſt of Deane, he ſuppoſed there was now twenty ſeven thouſand loads of full grown timber ſtanding and growing in that foreſt. An eminent timber merchant ſays in his letter to me, dated Worceſter, 23d March, 1763.

Mr. Fiſher, Sir, in anſwer to your letter concerning the decreaſe of oak timber fit for the navy, it is my opinion that in the counties of Worceſterſhire, Glocesterſhire, Herefordſhire, and Monmouthſhire, there is not now ſtanding one fifth part there was forty years ago, except in the foreſt of Dean, where twelve years ago I ſurveyed twenty five thouſand load of full grown timber, and perhaps there may be one half of that quantity expended ſince that time.

To which of theſe contradictory reports we are to give the greateſt credit, it muſt be left to the publick to judge; they are both gentlemen of character.

It is now near twenty years ſince the firſt ſurvey was taken; and there has been cut down in that foreſt ſince that period not leſs than five hundred load of full-grown timber yearly. How it ſhould increaſe in quantity is a paradox I am not capable of reſolving, though the growth of that foreſt is very quick. That there are ſome large quantities of full-grown timber, particularly in the inland counties, I make no doubt, has appeared to the Committee of Enquiry; but that theſe parcels now remaining are a ſufficient reſource for the future ſupply of the navy, is ſuch an abſurdity, that I ſhould be very ſorry to hear that the Commons of Great Britain were ſo palpably deceived as to fall into it. It is beyond a doubt, that much more than a moiety of all the full-grown timber in the kingdom has been cut down ſince the year 1740; and

I do

I do pronounce, without pretence of prophecy, that long before the year 1800, a period will be to the navy of Britain, if to be built of Britiſh oak, unleſs the preſent Parliament apply ſuch remedies that may be thought to infringe on the liberty of individuals. Methods have been pointed out, in the former parts of this treatiſe, that will not now be effectual, without a further exertion of legiſlative power; and it only now remains for the nation to conſider, whether they will ſuffer their preſent offſpring to become ſlaves to the next aſpiring invading maritime power, perhaps in leſs than twenty years, or that they will take ſuch ſteps as reaſon and the preſent declining ſtate of our navy timber dictate, that may prevent ſo fatal a cataſtrophe. As a ſubject, I have done and will do my duty in forwarning of the evil. About twenty-two thouſand loads of full-grown timber has been the conſumption yearly, in his Majeſty's yards, beſides the King's ſhips that have been built in private yards. The ſame quantity, or more, will ſtill be required. There only remains to enquire from whence muſt it come, and a future proviſion provided by planting, and a reſtraint in cutting; ſo that the neceſſary ſupply may be had, till the future growth, intended by a law not yet made, be arrived to maturity. We are now quarrelling about our freedom and liberty. My buſineſs is not to enter into political diſcuſſions, who are right and who are wrong. There may be miſtakes on both ſides of the queſtion. One thing I am well aſſured of, there can be no true liberty without providing againſt the common enemy. Heart of Oak has been the means of the liberty we have enjoyed; and without it, the internal diſputes of the kingdom will ſoon be ended, in favour of thoſe who will not ſuffer to diſpute about it; therefore it becomes every ſubject to join heart and hand, in behalf of this one thing needful.

Without

Without being further prolix, a ſurvey ſeems abſolutely neceſſary, from whence and how the navy may be ſupplied with full-grown timber till a future growth is provided. Methods for a future growth on the weſt lands and foreſts, and an obligation laid on gentlemen to plant, are likewiſe neceſſary; and a more effectual prohibition of deſtroying ſuch nurſeries, ſo that our poſterity may enjoy the ſame privilege that we have. That theſe are the ſteps that ought immediately to take place, remains no longer a doubt to me, and many others, who are beſt acquainted with our exhauſted finances in that branch: but, from the infatuation and inattention, that has taken place in our nobility and gentry, by cutting down their timber, and not taking care to plant, I have not the leaſt expectation, that any effectual methods will be carried into execution; but that we ſhall ſhortly and ſuddenly be plunged into conſternation and diſtreſs, unleſs the kind hand of providence prevent the ſame, by ſpiriting up thoſe who have it in their power to exert all their abilities for the welfare of their country. The rapid progreſs of the decreaſe of our full-grown timber, ſince the year 1763, the time I publiſhed the foregoing treatiſe, has been more ſenſibly obſerved by me, and a number of dealers in that branch, than in double the number of years before that period. What intelligence the Honourable Committee has attained, who were appointed, by an order of the Houſe of Commons, bearing date the 11th of March, 1771, to conſider how his Majeſty's navy may be better ſupplied with timber, will appear before the Houſe in due time, where my teſtimony is recorded.

It is worthy of remark, that at the period the author publiſhed his firſt edition, there was not leſs than three years ſtock of timber in his Majeſty's yards, and no viſible want had ever appeared.

Their

Their preſent ſituation, and difficulty of ſupply, has fully demonſtrated, that the numerous teſtimonies, produced by the author, of the proportionate decreaſe of navy-timber, for forty or fifty years paſt, are authentick, and to be regarded.

I am informed, that from the ſentiments of the Honourable Navy Board, it plainly appears, that there is a great ſcarcity of timber for ſhip-building, in England; and that, for the better ſupply of timber and plank, for the uſe of his Majeſty's navy, it had been found neceſſary to apply to foreign countries. From the information they have received from their purveyors and timber-merchants, they are of opinion, there is not a ſufficient quantity of timber in England to be purchaſed at any price: and further, that the ſtock of timber in the King's yard has been leſſening for theſe eight or nine years paſt; ſo that, tho' they uſed to keep three years ſtock before-hand, they have not now enough for the ſervice of the current year, and no appearance of procuring it, *&c. &c.*

I cannot learn that there were more than four or five of the timber-merchants and ſhipwrights, that were under examination, that gave any account at all, of their certain knowledge, of the decreaſe of timber fit for the navy. An eminent builder in the river obſerved, there was a great ſcarcity of timber in the kingdom, and particularly in the counties of Suſſex, Surry, Hampſhire, Berkſhire, Eſſex, Suffolk, Norfolk, and Kent; from whence they had been uſed to draw their ſupplies, and which counties are now almoſt drained. Another eminent builder in the river gives his opinion of the ſtate of the timber in the inland parts of the kingdom, and that he finds, in Herefordſhire, Glouceſterſhire, Monmouthſhire, Worceſterſhire, and Shropſhire, there are great quantities of large timber, and from which the Navy might be plentifully

plentifully and well ſupplied; and as a proof of this aſſertion, he has lately bought three thouſand large trees in Herefordſhire.

That there are ſome large parcels of timber in each of the before-mentioned counties, is a truth; but had this gentleman been as thoroughly acquainted with theſe counties as the neceſſity of his evidence required, he would have known, that in theſe very counties there is not now growing above one-fourth part there was forty years ago. See the teſtimony of * Walford, Smith and Williams, of the proportionate decreaſe.

Another eminent timber-dealer ſays, that, beyond all doubt, there was a ſcarcity of timber for the purpoſes of the navy; that in Suſſex, Kent, Surry, Berkſhire, part of Hampſhire, Eſſex, Suffolk, and part of Norfolk, it has been almoſt all cut down within theſe thirty years; and further, that though he had not carefully examined Glouceſterſhire, he knows enough of the country to ſay, that there is not much timber there in the hands of private perſons, and gives a juſt deſcription of ſeveral cauſes of the ſcarcity; the improper manner of cutting of coppices; converting of large timber, fit for the navy, into ſmall ware, ſuch as coopers ſtuff, *&c.* and the quantity of young trees deſtroyed by forges, *&c. &c.* That he thinks that there is a good deal of timber in Herefordſhire, much more than in the maritime counties; yet he thinks the King's foreſts, and perhaps the foreſt of Dean and New Foreſt, improved according to his idea, might be brought to ſupply timber for half the conſumption, in line-of-battle ſhips; that the maritime counties will ſtill ſupply ſome timber for the navy, in every year, but no great quantity, for thirty or forty years to come, and then a very great quantity; and that he is

* Page 72.

rather inclined to think, that there would be timber enough, taking one year with another, for the uſe of the whole navy, for 120 years.

The maritime counties, he allows, will ſupply ſome, but no great quantity. It is certain, beyond a doubt, that thoſe two foreſts have not, nor cannot, ſupply more than 800 and 600 loads, yearly, for many years to come; and the whole conſumption of the navy-timber, in his Majeſty's yards, is 22000 loads and upwards, on an average, for ſeven years paſt. He allows, that almoſt all the large timber, in eight different counties referred to, has been cut down in the ſpace of thirty years; and that though there is a deal of young timber coming forward, yet it will be thirty or forty years before it be fit for navy ſervice: from whence then muſt the remaining 20000 loads be ſupplied from? I make no doubt but that there is a ſufficient quantity of timber, in his Majeſty's foreſts and in the reſt of the kingdom, to ſupply the wants of the navy, provided it was appropriated for that purpoſe: but without a law to preſerve ſo much till a future growth is provided, I am well aſſured that the navy of England will be annihilated long before that period. Another eminent ſhip-builder, according to my information, gives his ſentiments to the following purport: That he knew, from his own examination and experience, that the timber in England, fit for the navy, is nearly exhauſted: that the cauſes of the preſent ſcarcity is owing to the vaſt quantity cut down for ſhip-building, ſome for private trade, but principally for the navy, and neglect of planting. The Author of this Treatiſe was likewiſe examined, and gave his opinion, that, of his own knowledge and obſervation of timber-counties, and the concurrent teſtimonies of the principal dealers and ſhipwrights, in different parts of the kingdom, that they are ſo drained of the navy-timber,

timber, that unleſs a future and certain ſupply can be ſecured, twenty years will put a period to our maritime force as a navy.

The before-mentioned teſtimonies, according to my intelligence, were the ſum and ſubſtance of the informations reſpecting the ſtate of the navy-timber in Great-Britain.

The cauſes of the ſcarcity appears to be the converſion of wood-lands into arable. Another cauſe: the increaſe of the royal navy, and the general trade of the kingdom, and particularly of the trade of the Eaſt-India Company, their ſhips having increaſed in number, ſize, and ſcantling: and another cauſe; the converting of timber fit for the navy into broken ſtuff, ſuch as ſtaves, boards, *&c.*

As to the mode of a future and better ſupply, after what has already been ſaid, both by the Author and others, who have given their ſentiments on this momentous ſubject, we are now ſo effectually drained of our navy-timber, there ſeems a neceſſity of adopting ſomething like the following ſhort and effectual method.

Firſt, A ſurvey of all the quantities of timber fit for the navy in each county: that every gentleman, who is poſſeſſed of ſuch large ſized timber, and intends to ſell the ſame, that he be obliged to make a tender thereof to the Navy-Board, in the ſame manner as the naval ſtores from America are, by every importer, at a market price.

Secondly, That all his Majeſty's foreſts be immediately planted and encloſed, and ſecured from rapine and deſtruction of cattle, *&c.* during the future growth.

Thirdly, That every gentleman poſſeſſed of land, for every hundred acres, at leaſt one acre, in the moſt convenient part of his eſtate as he may ſee moſt pro-

per, to be encloſed, planted, or ſown with acorns, and preſerved from deſtruction, and not cut down on any pretence, till arrived to maturity, under the title of an intended future ſupply for the navy of Great-Britain: ſuch encloſures to be exempted from all taxes and imports whatever. But if this be thought too great an infringement on the liberty of the ſubject, a bounty to be allowed by government for ſuch plantations, or a ſufficient quantity of waſte lands purchaſed in the moſt convenient places near the ſea-coaſts and navigable rivers, that this kingdom may never be in the ſame deplorable ſituation we are at preſent for want of a naval ſupply.

APPENDIX.

APPENDIX.

The Author's Sentiments, how the preſent Navy of England may be preſerved ſo as to endure more than double the Number of Years it will continue in the preſent Mode of laying up Ships.

THE great complaints that have lately appeared in the News-papers, of the defects of our navy, are very alarming; eſpecially as we have had ſuch numbers of ſhips of the line built ſince the commencement of the late war, and ſince the peace; I ſuppoſe not leſs than from thirty to forty ſail. But what is ſtill more alarming, that many of theſe ſhips, who have never been at ſea, and built of the beſt Britiſh oak in his Majeſty's yards, in the ſpace of ſeven and ten years, upon inſpection, have been found ſo defective as to be unfit to proceed to ſea without a large repair; which might have been of the utmoſt bad conſequence, had a rapture enſued, according to the expectation of the nation in general, with Spain, the laſt war.

The ſame cauſe of defect in his Majeſty's ſhips does ſtill remain; many temporary and partial remedies have been pointed out, by different perſons; a free communicated air, through every part of the ſhip that can be come at, is, no doubt, of material conſequence. Different ſtrakes of planks, and ſperketing of the gun-deck taken off, will communicate air to the ends of the beams and timbers, and openings under the gun-deck, and orlop clamps will cauſe that air to have a freer circulation betwixt wind and water of the ſhip, commonly ſo called.

Experiments

Experiments have been made of a compoſition, or liquid, to penetrate into the ends of the beams, or other timber, where it can be made uſe of, and has been thought to be a great diſcovery by the inventors, who are ſo ſanguine as to ſay, that the timber ſo prepared will not rot; but this being a modern invention, it will be time enough, a dozen years hence, to give judgment thereon; beſides, every ſhipwright muſt know the impracticability of immerſing all the clamps, thick ſtuff, and timber, of a ſhip of the line, in a liquid of this kind.

The faireſt and beſt method, now ordered by the Admiralty and Navy Boards, are, that more time be allowed to build ſuch ſhips than what has uſually been practiſed, ſo that the frame of the ſhip to ſtand uncovered, without plank, for a year at leaſt. Another method of this nature may be propoſed that will be of greater utility than any yet practiſed, viz. That all the frame, beams, knees and thick ſtuff, be all prepared, and placed under cover in large ſhades, where the air may have free communication, and where neither ſun nor rain can penetrate. This may be done at a ſmall expence, and continue to lye as long as the Royal Boards ſee meet; for years if they pleaſe, till the whole is thoroughly ſeaſoned, and will be free from rents or charques produced by the ſun. In a frame newly cut and expoſed to the weather, when the whole comes to be covered with plank, and the air not having free liberty, a moiſture remains, which is the firſt cauſe of putrifaction, and will end in corrupting the whole to its original duſt.

Whoever duely conſiders the nature of vegetable life, muſt know, that by a true mixture of that air and water, the ſeed and plant ſown or planted are nouriſhed in a proper ſoil, till it becomes a tree of the greateſt magnitude: but when once this vegetable life

life is taken away, by the tree being cut down or blaſted, the united powers of ſun, air, or water, acting jointly, produces a diametrically contrary effect, and conſumes the whole in a ſhort ſpace of time, comparatively to the time of its growth. The ſun of itſelf only hardens the timber and makes it brittle; the air without ſun and water, keeps it in its preſent ſtate; the water, without the ſun and air, has the ſame effect; and heart of oak will remain time immemorial, unleſs deſtroyed by inſects.

This leads me to conſider how the preſent navy may be preſerved more than double the number of years it will continue in the preſent mode of laying up ſhips.

The method is ſimple, but will prove ſure if reduced to practice; all the reaſons of impracticability will vaniſh away, (like ſnow on a ſunſhiny day) if weighed in the balance of reaſon. Roofing thoſe ſhips over, that are not likely to be commiſſioned or wanted for a conſiderable ſpace of time, will anſwer every good end of preſervation, particularly the largeſt ſhips. The utility may be eaſily pointed out, it ſpeaks for itſelf; if neither rain nor ſun comes upon them, all cauſe of corruption ceaſes, and in one ſummer every part of the fabrick will certainly become dry; a freer communication of air, through the whole ſhip, may be introduced then, if expoſed to the weather; and if put in practice, it will be found that all moiſture will be dryed away, even to the water's edge, on the outſide, and below the water on the inſide.

But ſuppoſing the inſide of the ſhip be very wet and damp, at the time of roofing, the drying may be expedited by the new invented ſtoves with charcoal, and eaſily ſhifted into every part of the ſhip; and when the timber and plank is thoroughly dryed, which will ſhortly be the caſe, (and under a roof) no reaſon can be

be given, why it will not continue ſound, the ſame as the timber of St. Paul, or Weſtminſter-Abby.

Two of the moſt weighty objections preſent themſelves; the practicability of it, or the danger of the roof being blown away, in ſtormy weather, and the expence attending it. As to the firſt, there appears to me no more difficulty than is attendant on the covering of any large fabrick throughout the kingdom, nor near ſo much. The breadth of a firſt-rate, at the gunwale, is not 40 feet; that divided, fore and aft, into two equal roofs, the elevation would not be more than ten feet above the ſhip; the fore and after ends laid ſloping, the wind would have little power of, and the water that falls from the inner ſides of the two roofs to the middle of the ſhip, conveyed in a leaden ſpout, and by a like conveyance acroſs the ſhip, under the roofs, to fall clear of the outſides of the ſhip, ſo as not one drop to fall on board, is eaſy and practicable; that part of the roof, on each ſide of the ſhip, below the gunwale, to convey the water clear of the ſhip's ſides, formed in the ſame manner as the ſhades are for drying glue, that throw off water and let in air.

The roof being double, or, properly ſpeaking, compoſed of two roofs, need only be of ſlit deals, of about fifteen feet long, for a firſt-rate; inch or inch and a quarter boards quite ſufficient; the water runs down the grain, or length-way; the lower boards about ſix inches aſunder; the upper boards over-laps each edge about two inches, ſlightly nailed, which will always be tight; and this covering may be moved at pleaſure, or any part of it, when ſeaſoned boards are wanted, and replaced with others.

With regard to expence, I am pretty certain, that the whole of the covering for a firſt-rate, workmanſhip and nails, will not amount to more than three hundred

hundred and fifty, or ſuppoſe four hundred pounds; leſſer ſhips in proportion. The utility is manifeſt, the whole fabrick being under a ſhade. Calking aloft and decks is uſeleſs; likewiſe painting: and as many of the large ſhips may probably be ſeveral years without being called to actual ſervice, and the cauſe of decay being taken away, they will endure, at a moderate computation, more than double the number of years, than if expoſed as they are at preſent to the weather. If a firſt-rate coſts forty or fifty thouſand pounds, and will not endure above ten or fifteen years, without a ſum almoſt equal to the firſt coſt in re-building, I am very confident, that ſuch a ſhip under cover will continue thirty or forty years without an equal expence laid out upon her; and all other ſhips in proportion.

Had his Majeſty's ſhip the Victory, of one hundred guns, been roofed over as ſoon as launched, and finiſhed, I am well aſſured, there had been no need of the preſent repairs: ſhe is not much more than ſeven years old, and has not been in much actual ſervice. I am told ſhe is now under inſpection and repair, at Chatham yard, and found ſo defective as to be ſtripped of moſt of her outſide plank to near the water-edge. This I was told by a perſon who viewed her; and the current report was, that the repair would be near twenty thouſand pounds. Some other ſtates make uſe of theſe experiments, whoſe materials are far from being ſo durable as ours are, and find their end in it. The Venetians, according to Keyſler's Travels, have numbers of ſhips of war and gallies under ſhades of the like nature, and have continued, without receiving any damage, between fifty and ſixty years.

Captain Robert Hargraves, of Liverpool, who has conſtantly traded to Venice, for ſeveral years, in the brig Mary-Ann, belonging to myſelf and co. and is now on his voyage from thence to London and Liverpool,

pool, has frequently told me he has viewed their ſhips of war under ſhades, and that they have many on the ſtocks under ſhades. The Dutch have ſeveral of their men of war roofed and tyled over. MANSTEIN's *Memoirs of Ruſſia*, at Peterſburgh there is conveniency for preſerving two hundred gallies dry and under cover. COOK's *Travels in* 1740, ſaw the ſhips that Peter the Great built when at war with the Turks; they were hauled on ſhore near the river Don, and had houſes built over them.—Theſe are ſufficient teſtimonies for Engliſhmen to open their eyes and look about them. If ten, fifteen, or twenty thouſand pounds expence may be avoided in one ſhip only, if but once in twenty years, it is worthy of notice: were it practicable that our men of war could be built with ſhades over them, according as Mr. Gabriel Snodgraſs, ſurveyor to the Honourable Eaſt-India Company, obſerved before the Honourable Committee of Enquiry, it would be of the utmoſt utility.

However, as our naval ſtock of timber is exhauſted to ſuch a degree, that we are neceſſitated to apply to foreign powers in Germany, which ſupplies, in caſe of war with any of thoſe powers, will be eaſily cut off, it behoves us to take ſuch ſteps as wiſdom and prudence direct, to preſerve thoſe we have as long as we can. If ſo ſimple a remedy, as here pointed out by the author of theſe hints, will be attended with ſuch ſalutary conſequences, to the ſaving of immenſe ſums of money to the nation yearly, beſides always having a fleet ready for action, without loſing time, it will be aſked, how it is poſſible a ſcheme of this nature could have eſcaped the penetration of ſo many judicious men, of greater abilities than the Author pretends to, who have had the direction of the naval affairs of Great Britain? I muſt confeſs, it is difficult to aſſign any other reaſons than the preſent infatuation

of

of the nation in general, to ſuffer almoſt all the naval timber to be cut down, as is the caſe, without taking care for a future ſupply. We may call it neglect, ſupineneſs, or inattention: but whatever has been the cauſe, ſo it is.

However, other reaſons may be pointed out; and the principal have been, the neglect or want of exerciſing the rational faculty.

But, to the honour of the preſent Admiralty and Navy Boards, that ſo ſoon as they were thoroughly apprized of the real ſcarcity of full-grown timber, by the ſupplies not coming in as uſual by contract, they have advertiſed the Senate of the nation thereof, and it now reſts with the Auguſt Aſſemblies, for to enact ſuch laws, or take ſuch ſteps as they in their wiſdom ſee meet, that Britain may continue to be the firſt maritime and naval power.

If any of the hints I have given, or the intelligence I have endeavoured to collect, be of real ſervice to my country, ſo that effectual methods may be now attended to, all my utmoſt wiſhes are accompliſhed, and ſubſcribe myſelf,

The PUBLIC's *humble Servant*,

ROGER FISHER.

LIVERPOOL,
January, 1772.

Extract of a Letter from the Author to the Honourable Navy Board.

LIVERPOOL, *September 7th*, 1771.

Honourable Sirs,

IT is with the greateſt pleaſure I humbly communicate a diſcovery I was not furniſhed with when I had the honour to wait on you in April laſt, though I did give ſome imperfect hints to the Honourable Committee. I am now lengthening a ſhip called the Fair American, belonging to Charles Goodwin, Eſq; and Co. of Cheſter, built at South Carolina, in 1761, all her frame live oak; her ſkin, outſide and inſide, pitch pine; her kelſon, ditto; her beams and wale pieces, their beſt white oak; her ſcantlings as large as our ſmall frigates; her floor 16 feet long, ſided upwards, of 12 inches; her midſhip futtocks 14 feet long, 3 feet ſweep, the reſt in proportion; the fineſt ſquare knees 10 inches ſided without chock.

But what is moſt extraordinary, though ten years old, and conſtantly trading from Cheſter, Liverpool, South Carolina, and Liſbon, there is no decay at all either in timber or plank, except in the wales and beams, which, as obſerved, were white oak, and ſome of them are rotten. The timber is ſo hard and tough it is difficult to dub or bore, and the bolts and nails hold to ſuch a degree, it is with the greateſt labour we can ſeparate the work. She is now in our graving dock. She was ſtranded at Parkgate about five or ſix years ago, and beat up from low water to high water, on a clay beach mixt with ſmall ſtones, in ſo high

high a ſea the people were obliged to quit the deck and ſhelter in the cabin, or would have been waſhed over board, and the laſt year was ſtranded at Pluckington's Bank in a heavy gale of wind, in my preſence, and full loaden; and on opening her to lengthen her 12 feet, not one futtock broke or ſprung, only her kelſon ſprung and her midſhip floors ſtarted from the futtocks about half an inch, chiefly owing to the thinneſs of her ſcieling, though near three hundred tons burthen, is no more than one and half inch plank, except at the floor heads two and half inch, and outſide ſkin only two and half inch of the beſt pitch pine each; but what I would communicate to your Honours, that may be of the greateſt utility to Great Britain's navy, Captain Minſhall tells me that many of the live oak trees are of a very large ſize, and extend in a chain of iſlands from North Carolina through South Carolina, Georgia, to Cape Florida along ſhore, and on the edge of the continent on a ſandy ſoil; the ſtems of the trees grow large, the lengths from 15, 20, 24, and 30 feet in length, in general pretty ſtraight, ſome bending by the weſterly winds, as Minſhal ſuppoſes, with very large tops ſpreading, and ever green; the boughs in general very crooked, they ſeldom meddle of the body of the tree, being too large; all her futtocks are natural, none grain cut; her ſtem is of one piece from her bowſprit to the keel, except a ſlice at the upper end to anſwer the molds, and would certainly have made a fourth futtock of 25 feet long for a firſt rate.

He paid no more for all the timber uſed in the ſhip, except the plank, than 12l. ſterling, though he thinks it is now dearer. I aſked him particularly with reſpect to the quantity, ſize, and number of trees that might be got; he ſays, it is immenſe, without end; as to the ſize, he ſays he has not ſeen any ſo large in England.

England. I ſhewed him ſome of my beſt copy or wood timber, ſuch as would make clamps or half beams for a ſixty gun ſhip, he ſaid that many of the live oak trees were much larger; as to its duration, he had ſeen ſeveral quantities lie on the ground ſquared, that had lain there time immemorial, as the old inhabitants told him they thought near 100 years; that he turned them and chipt them, and found them ſound and as hard as thoſe he cut down; he gave me the names of ſeveral iſlands, Long Iſland, between North and South Carolina, about ſix leagues long; Coffin Iſland, at the entrance of Charles-Town Bar, on which the timber grew that his ſhip was built from, eleven miles long; St. Catherine, lies between South Carolina and Georgia, ſeven leagues long; Cumberland Iſland, between Georgia and Cape Florida, ſeven leagues long; and more iſlands he did not know their names.

Some of theſe iſlands have been lately ſold by government, and many of them he ſuppoſes are ſtill belonging to government. The pitch pine is excellent ſtuff, about the weight of Engliſh oak, of the greateſt lengths, and I am well aſſured would be equal, if not ſuperior, for plank and thick ſtuff and beams, than German oak, and ſuperior to Britiſh oak, for all plank in ſhips that are to go to Africa, Eaſt or Weſt Indies; it never ſhrinks by the weather; this is of my own knowledge by the ſhips we have in the African trade for ſeven years paſt; the treenails of pitch pine, all ſound that we have backed out.

The pitch pine will make kelſons for our firſt rates I think equal to the beſt Britiſh oak, and I ſuppoſe more durable. There is a ſhip in Briſtol near thirty years old, built of live oak and pitch pine, I am told, both by Capt. Minſhall and ſeveral others, without defect. It is a truth that a piece of live oak of twelve inches

inches ſquare is ſtronger than a piece of the beſt Britiſh oak of fifteen inches, the weight is about the ſame proportion. Your honours will excuſe this long epiſtle. I am particularly fond of the navy, and love my country, or I would not have wrote it.

I am, with the greateſt Eſteem,

Your HONOURS

Moſt obedient humble Servant,

ROGER FISHER.

FINIS.

inches square is stronger than a piece of the best English oak of fifteen inches. The weight is about the same proportion. [illegible] will encode this long epistle. I am [illegible] and of the navy, and love my country, [illegible] have wrote it.

I am, with the greatest [illegible]

[illegible] Hopkins

My dear friend Joseph Swett,

ROGER WILLIAMS.